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The Cognitive Appraisals and Coping Strategies of Male Adolescent Inpatients

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THE COGNITIVE APPRAISALS AND COPING STRATEGIES OF MALE ADOLESCENT INPATIENTS

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CHAPTER 1

INTRODUCTION AND LITERATURE REVIEW

The purpose of this study has been to explore several aspects of cognitive processing in different groups of male adolescent inpatients. First, cognitive appraisal, coping, and perception of outcome were examined in three specific state situations which were related to psychiatric hospitalization. Patients were expected to find all three situations stressful and problematic. Second, patients' reports of symptom severity, constructive thinking, problem orientation, and problem-solving skills were evaluated, and patient groups were expected to differ on these dimensions. In the view of transactional theory, dispositional coping styles, such as emotional and behavioral orientations to a problem, problem-solving skills, and emotional state have been found to have a relationship with appraisals, coping, and outcome perceptions in specific situations (Lazarus & Folkman, 1984; Folkman, 1984). Consequently, their inclusion in this study was thought to add an important dimension. Finally, research literature has suggested that people cope in different ways depending upon the intensity of their appraisals of a situation (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986a). In

this study, a comparison was made of coping choices when patients reported intense appraisals versus mild ones. For example, coping choices were expected to be different when patients saw a situation as highly stressful or very threatening.

Patient subsets were determined by factors believed to be associated with appraisal, coping, constructive thinking, and problem-solving. Inattention, overactivity, and aggression were three characteristics the inpatients were thought to have in varying degrees which might be associated with these variables. Martin (1994) and his associates defined inattention as the inability to selectively identify important stimuli in the environment and then to sustain concentration on them, especially in the face of distractions. In the same study, they defined overactivity as a heightened state of motor activity, and aggression as acts of physical violence, or the threats of such acts. In numerous studies, inattention, overactivity, and aggression have been identified as obstacles to competent information processing (Halperin, Matier, Bedi, Sharma & Newcorn, 1992; Kendall & MacDonald, 1993; Kendall & Panichelli-Mindel, 1995).

In this study, the patients were divided into groups based upon the degree of inattention, overactivity, and/or aggression they demonstrated. The patient groups were expected to differ in their appraisal of situations, their coping choices, and in their

dispositional information processing characteristics. If supported, such knowledge could make a difference in treatment planning for patients. This study also looked at differences between patients who go into physical restraints and those who do not. Restraint patients could be expected to differ from other patients in significant ways, particularly with regard to information processing. This study explored the differences between these patient groups on their appraisal and coping in the state situations, and on their dispositional cognitive skills and styles.

Review of the Literature

So common is the notion of stress, that nearly any person on any street in the United States could formulate some definition for this occurrence. Most often, these definitions would reflect either distressing life circumstances or distressing psychological or physical responses to life events, perspectives that are also taken by researchers. Early psychological research on stress was directed at assessing the effects of major life events on personal well-being. Here, the strength of the stress experience was measured by the power of an event to elicit an adaptive response. For example, Holmes & Rahe (1967), pioneers in psychological stress research, viewed stress as a social readjustment following a life event which might be perceived by the subject as either

desirable or undesirable. Often, contemporary scales have emphasized negative events more than positive or challenging circumstances because research has indicated that distressing events are substantially more stressful (Thoits, 1983; Cohen, Tyrrell, & Smith, 1993).

Obtaining the sum of major life events has continued to be an important method for quantifying stress by quantifying the psychological demands on a person (Wagner, 1990). More recently, however, checklists of daily hassles, such as the Children's Hassles Scale (Kanner, Harrison, & Wertlieb, 1985) have attempted to assess the cumulative contribution of minor stressors. In general, research using both types of scales has taken a stimulus-response approach to the measurement of stress in order to separate stress from the person's response to it (McCrae, 1990; Pbert, Doerfler, & DeCosimo, 1992). These scales have provided an objective measure of the quantity of stress that has been generated across many different types of situations.

In contrast, Lazarus and Folkman (1984) have proposed taking a transactional viewpoint and have defined psychological stress as "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being (p. 19). From this perspective, the salient feature determining degree of stress has been the person's perception of a life event or events, rather

than an objectively evaluated criteria representing the magnitude of elicitation for a given incident or sum of incidents. In the current study, the three specific situations were used to evaluate stressful circumstances in order to tap into the subjective feelings of the patients, as the theory suggests. Lazarus and Folkman (1984) have called their model of psychological stress the cognitive-phenomenological theory of stress and coping.

The Cognitive-Phenomenological Theory of Stress and Coping

The cognitive-phenomenological theory of stress and coping was formulated on the proposition that stress is relational and process oriented (Folkman, 1984). Unlike theories in which stress has been viewed as a stimulus, a product, or a response, Folkman defined psychological stress as a relationship between a person and a life event. Moreover, cognitive appraisal and coping were the two processes which served as mediators of the stressful encounter and the outcome of that event, and both mediators were seen as relational and process oriented (Folkman, et al., 1986). Folkman (1986) defined cognitive appraisal as "a process through which the person evaluates whether a particular encounter with the environment is relevant to his or her well-being, and if so, in what ways," and coping as "the person's constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding

the person's resources," (p. 992-993). Because each person-environment encounter was relational, the meaning of appraisals, beliefs, and coping efforts needed to be examined in light of the unique context in which they were embedded. For example, a belief about personal control might increase or reduce stress depending on the particular characteristics of the situation (Folkman, 1984). Likewise, a specific coping activity might be deemed appropriate in one situation but not another, or at one point in an encounter but not another. Because each person-environment relationship was viewed as a process, the encounter was dynamic and changing, with both the person and environment acting upon one another. Accordingly, both appraisals and coping activities were apt to change as an encounter unfolded (Folkman, 1984). In this study, patients' perceptions of living on the unit were expected to change over time, as the transactional theory suggests. The change could only be detected in a study that looked at more than one specific situation.

Cognitive Appraisal

According to theory, the cognitive appraisal processes are the elements that have established the meaning of an event which, in turn, has shaped the emotional, physiological, and behavioral reactions a person has had toward that event (Tomaka, Blascovich, Kelsey, and Leitten, 1993). Conversely, the progression of

emotions that a person experiences during the unfolding of an encounter has revealed the shifts in meaning or changes in the interpretation of the experience (Smith & Ellsworth, 1985). Cognitive appraisal was divided into two stages, primary and secondary. Primary appraisal was a judgement as to whether the person-environment encounter was of any importance to the individual involved (Folkman, 1984). Was anything at stake? Did the encounter affect well-being? If the answer to these questions was 'yes,' then a global evaluation needed to be made to establish how, or in what way, the encounter affected the person's interests. With these questions answered, secondary appraisal determined whether anything could be done about the situation and, if so, what? This was the point at which various coping options were evaluated, and a decision was made concerning what needed to be done, or how the situation was best handled (Folkman, Lazarus, Gruen, & DeLongis, 1986b).

Primary appraisals were categorized according to the emotions they evoked. When a situation was appraised, a decision was made to determine whether the encounter was irrelevant, benign-positive, or stressful. If stressful emotions were aroused, they were often associated with a sense of challenge, threat, or harm. Threat appraisals elicited anxiety and fear of loss. Harm appraisals invoked sadness and/or anger, and challenge appraisals elicited hope or anticipation of possible gain whether that gain

was the avoidance of harm or the opportunity for growth (Smith, Haynes, Lazarus, & Pope, 1993; Tomaka, Blascovich, Kelsey, & Leitten, 1993). On the appraisal instrument developed by Folkman and Lazarus and their associates, primary appraisal questions assessed threat to self-esteem, threat to a loved one's well-being, threat of not achieving a goal at work, harm to health, safety, or well-being, strain on financial resources, and losing respect for someone else (Folkman, et al., 1986a, 1986b). Not many instruments have been developed to assess primary appraisal. Peacock and Wong (1990) recently developed the Stress Appraisal Measure (SAM) to evaluate a subjects feelings of threat, challenge, and centrality (importance to well-being) in a situation.

In general, the most common approach to examining secondary appraisals has been to explore perceptions of control. Several studies have used variations of four questions that were originally designed by Lazarus and Launier (1978). The first question determined the degree to which subjects believed a situation was amenable to change, and the second inquired about whether the situation was one that had to be accepted. The third question asked subjects whether the situation was one in which they needed more information before they could act, and the fourth probed whether the subject had to hold himself/herself back from taking some desired action (Folkman, et al., 1986a). On the SAM,

secondary appraisal was evaluated by several questions on perceptions of control (Peacock & Wong, 1990). Was the situation perceived as controllable-by-self, controllable-by-others, or uncontrollable-by-anyone? Other studies have created questions on perceived control that were more specific to the subject under study. For example, Fairbank, Hansen, and Fitterling (1991) did a study on chronic posttraumatic stress disorder and used the question, "How much control do you have over this memory/event," (p. 276).

Appraisal instruments such as the one used by Folkman and Lazarus (1986a; 1986b) and their associates have provided a good foundation for later research but the psychometric properties have not been acceptable to many investigators. Particularly problematic have been the single item questions for which there may be high measurement error and no way of identifying it. Another problem with the Folkman and Lazarus questionnaire has been that the secondary appraisal questions evaluating coping options have overlapped with the items found on the Ways of Coping Questionnaire (WCQ), confounding comparisons between these instruments (Peacock & Wong, 1990). In order to address these issues, Peacock and Wong (1990) have designed the SAM to be a multidimensional self-report questionnaire that measures important dimensions of primary and secondary appraisal and is psychometrically sound.

The three primary appraisal scales of the SAM are Threat, Challenge, and Centrality. Threat has been used to measure the degree to which the situation being evaluated is perceived as having the potential for harm or loss to the person. The Challenge scale has identified the degree to which the subject sees the possibility of gain or growth emerging from the stressful situation. Lastly, the Centrality scale has reflected a person's perception of how important the stressful situation is to personal well-being. The three secondary appraisal scales have measured perceptions of control. The Controllable-By-Self scale has assessed the subject's beliefs about whether or not he/she can effect any change in the situation and, if so, how much. The Controllable-By-Others scale has measured the subject's belief's about the potential for control by others in the situation. A strong endorsement of the items that make up the Control-By-Others scale has implied that the subject believes there is help available from others, or someone is available they can turn to for support. Finally, the Uncontrollable scale has evaluated the degree to which the subject believes the situation cannot be controlled by anyone. Although not directly a dimension of appraisal, the Stressfulness scale has determined the subject's perception of how anxiety provoking the situation is. The degree to which the subject has endorsed the stress items has indicated the overall negative emotional arousal experienced in the

situation.

Peacock & Wong (1990) reported that internal consistency was evaluated for each of the seven scales of the SAM in three separate studies. Among the primary appraisal scales, the alpha correlations ranged from .65 to .75 for the Threat scale, .66 to .79 for the Challenge scale, and .84 to .90 for the Centrality scale. Alphas for the secondary appraisal scales and the Stressfulness scale ranged from .84 to .87 for the Controllable-By-Self scale, .84 to .85 for the Controllable-By-Others scale, .51 to .82 for the Uncontrollable-By Anyone scale, and .75 to .81 for the Stressfulness scale. Intercorrelations for the six appraisal scales were in the moderate range, with a mean of ±.22, which suggests that the scales measure reasonably independent appraisal components. Regression analyses have indicated that threat, challenge, centrality, and controllable-by-others were all significant predictors of high stress in different studies; however, threat accounted for approximately 50% of the variance in each case.

Construct validity was supported by two factor analytic studies in which the items loaded on factors conceptually similar to the identified SAM scales (Peacock & Wong, 1990). Validity was also supported in a study where the SAM was able to differentiate between appraisals for two very different stressors. Convergent validity was investigated by a study of the relationship between

the SAM and three other self-report measures, Rotter's Locus of Control, the Multiple Affect Adjective Checklist (dysphoric mood), and the Brief Symptom Inventory (psychological symptoms). The Challenge scale and the Controllable-By-Others scale were both significantly and negatively related to Locus of Control. The negative relationship between locus of control and perceptions of control in specific situations has been interpreted as suggesting that people with an internal locus of control are inclined to feel in control when they have the support of others, or others they can lean on. This finding is consistent with studies that have found a positive relationship between internal locus of control and social support.

Psychological symptoms were positively correlated with threat, centrality, greater stressfulness, and the perception that the situation was uncontrollable. Also, those high in psychological symptoms were not likely to see others as a source of support in stressful situations. Dysphoric mood was related to all of the SAM scales, positively to threat, centrality, greater stressfulness, and the perception that the situation was uncontrollable, and negatively to challenge, control by self, and control by others. These relationships have been consistent with those found in other studies, and support the contention that the appraisal scales measure relatively independent dimensions (Peacock & Wong, 1990).

Coping

The resolution of a stressful event has been viewed as being dependent upon a person's ability to correctly appraise the situation and then to apply appropriate coping strategies or skills. Although there is ample evidence that some coping choices are more effective than others, transactional theory has made no distinction between good and bad coping. Instead, coping has been seen as cognitive and/or behavioral measures designed to manage the stress whether or not they are successful (Folkman, et al., 1986a). The success or failure of the coping efforts has been equated with the immediate outcome of the situation, and only the person concerned can make those determinations. Outcome judgements have been highly influenced by personal goals, expectations, and personality characteristics (Folkman, et al., 1986a). All coping behaviors have been placed into one of two broad categories, problem-focused strategies and emotion-focused strategies. Problem-oriented or task-oriented coping has involved all cognitive or behavioral efforts that a person makes to change aspects of the person-situation transaction in order to reduce or eliminate the problem. Emotion-oriented coping has comprised all efforts made to regulate stressful emotions that are aroused in the person-situation encounter (Folkman, et al., 1986a).

Several coping instruments have been devised to measure coping strategies in stressful situations. The most frequently

used inventory has been the Ways of Coping Questionnaire (WCQ) and its predecessor the Ways of Coping Checklist (WCC); both instruments were created by Folkman and Lazarus (1980; 1985). Although the WCQ has been widely used in the past, the instrument has increasingly come under attack in recent years. Objections to the inventory have principally centered on the instability of its factor structure. The WCQ has been factor analyzed many times and the resulting factors have varied in number. Moreover, the items that make up a similarly labeled factor have not been stable across studies (Parker, Endler, & Bagby, 1993). Both Amirkhan (1990) and Endler and Parker (1994) have developed multidimensional questionnaires to measure coping with these methodological concerns in mind. Each of these inventories is the outcome of a series of factor analytic studies, and the resulting scales on them are independent and highly reliable. The Coping Inventory for Stressful Situations (CISS) has three scales measuring Task-oriented, Emotion-oriented, and Avoidance-oriented coping (Endler & Parker, 1994). Through factor analysis, the Avoidance scale has been broken down into two subscales, Distraction and Social Diversion.

The primary version of the Coping Inventory for Stressful Situations (CISS) was designed to measure general, dispositional coping styles rather than coping strategies chosen in specific situations but the scale can be used for specific situations with

a change of instructions. The questionnaire began with a large pool of items which were factor analyzed. Three factors emerged, and only items which loaded .35 or above on a single factor were retained. Further items were eliminated which had poor face validity. The resulting factor structure was cross-validated with different populations, and gender differences were explored. The CISS has been found to have a stable structure that has been exactly replicated with different samples. Six week test-retest reliabilities were acceptable and ranged from .51 to .73. Internal reliabilites were excellent with most of the alpha coefficients falling in the high .80s and low .90s. The Avoidance coping scale had the lowest alphas in the .83 to .84 range. Alphas on the two subscales were somewhat lower than the primary scales but very acceptable with correlations of .77 to .80 for the Distraction scale and .76 to .84 for the Social Diversion scale (Endler & Parker, 1994).

Construct validity has been established for the CISS by assessing its relationship to other known measures of basic coping style. Endler and Parker (1994) reported that in a study employing both the CISS and the Ways of Coping Questionnaire (WCQ), the intercorrelations were conceptually accurate, converging and diverging in a predictable manner. In another study, the CISS scales were found to be moderately correlated with the appropriate scales of the Coping Strategy Indicator (CSI); the

intercorrelations ranged from .41 to .57 (Endler & Parker, 1994). The Task scale and the Emotion scale (CISS) were correlated with the Problem Solving scale and Avoidance scale (CSI), respectively. The Social Diversion scale (CISS) was related to the Seeking Social Support scale (CSI), and the Distraction scale (CISS) was related to the Avoidance scale (CSI).

The relations between the CISS and the Defense Style Questionnaire (DSQ) were also examined. The Task scale (CISS) was related to Mature Defenses (DSQ) for both men and women and negatively related to Immature Defenses (DSQ) for women. The Emotion Scale (CISS) was related to Neurotic Defenses (DSQ) for women and Immature Defenses (DSQ) for both men and women. The Distraction scale (CISS) was correlated both to Neurotic and Immature Defenses (DSQ) for women but not for men. Finally, Social Diversion (CISS) was related to Mature Defenses for men and Neurotic Defenses for women. Endler and Parker (1994) also investigated the relationship between the CISS scales and three psychopathology dimensions taken from the Jackson Basic Personality Inventory. The Task scale was negatively related to Depression and Social Symptomatology (BPI), and the Emotion scale was positively related to Psychiatric Symptoms, Depression, and Social Symptomatology. Avoidance coping was weakly related to Psychiatric Symptoms.

Dispositional Coping Style

Epstein and Meier (1989) have taken a slightly different approach to dispositional coping style than Endler and Parker. Influenced by a theory of personality called cognitive-experiential self theory, they have constructed an inventory, the Constructive Thinking Inventory (CTI), that measures automatic constructive and destructive thinking constructs. The habitual patterns of constructive and destructive thinking have been thought to be related to general coping ability. The original scale contained 108 items and was composed of six scales that were originally derived factor analytically. A shortened scale with 52 items has been developed for use with adolescents. In constructing the original questionnaire, Epstein and Meier developed eighteen a priori scales with 100 items that had been gleaned both from the literature and from daily diaries of Epstein's students. When the items were factor analyzed, seven scales emerged, a global scale measuring constructive thinking and composed entirely from items on other scales, and six scales measuring specific dimensions of constructive and destructive thinking. The six scales and the percent of variance each accounts for are as follows: Emotional Coping (62.8%), Behavioral Coping (13.3%), Categorical Coping (8.7%), Superstitious Thinking (6.0%), Esoteric Thinking (originally the Negative Thinking Scale) (5.0%), and Naive Optimism (4.3%). The Superstitious scale did

not become part of the adolescent version.

After the preliminary scales were established, they were further perfected by using item-scale correlations for augmenting internal-consistency reliability and by using items that were conceptually coherent. According to Epstein and Meier (1989), the final development of the scale took into account several components of test construction other than factor structure; hence, they did not expect the original factor structure to be duplicated, nor did they believe that duplication was an important consideration. All of the scales except Naive Optimism have been found to have significant positive or negative correlations with the global scale that range from a low of -.56 for Superstitious Thinking to +.81 for Behavioral Coping. Of the six specific scales, only Naive Optimism is completely independent; the other scales are moderately related to one another with correlation coefficients ranging from ±.29 to ±.50. Overall, the internal consistencies for the scales are good with the following alpha coefficients: Global Constructive Thinking (.90), Emotional Coping (.89), Behavioral Coping (.82), Categorical Thinking (.76), Personal Superstitious Thinking (.79), Naive Optimism (.71), and Esoteric Thinking (.84).

The Global Constructive Thinking scale is bipolar and measures both the presence of constructive thinking and the absence of destructive thinking. The content of the scale

suggests that people who score high on the scale are accepting of self and others, tend to see the positive side of things, and have an authentic view of reality which allows them to behave effectively in the world. The Emotional Coping scale is bipolar and measures self-acceptance and the absence of negative thinking. People who score high on this scale tend not to worry excessively, not to take things personally, and not to be sensitive to what other people think of them. Low scores on this scale indicate anxiety, worry, and a tendency to feel threatened when being evaluated. Also, low scores imply an unhealthy anchoring of the ego to the successes and failures of life, particularly the latter. The Emotion Coping scale has the second highest intercorrelations with the Global scale. The Behavioral Coping scale is bipolar and measures positive thinking, realistic optimism, effective planning, and an action orientation. Of all the scales, the Behavior Coping scale is the most highly correlated with the Global scale. The Categorical Thinking scale is bipolar and high scores reflect a tendency to see the world as black or white in an either-or mode. People who score high on this scale have been identified as rigid, judgmental, intolerant, and more likely to judge themselves and others negatively. Also, high scorers been found to have intense emotions which compromises clarity in thinking. The Naive Optimism scale is unipolar and measures an unrealistic optimism and an over-simplified and

stereotypical approach to life. High scores on this scale have been associated with the tendency to overgeneralize from positive outcomes and, to a lesser degree, from negative outcomes. The Esoteric Thinking scale measures pessimism and a generally negative approach to life. High scores on this scale have indicated distrust of others and a general 'doom-and-gloom' attitude which cripples effective performance.

Several studies have sought to establish the discriminant and construct validity for the Constructive Thinking Inventory (CTI). The most important element in determining discriminant validity has been to demonstrate that the CTI is not just another intelligence test. Cognitive-experiential self-theory has proposed that the dimensions of constructive thinking represent experiential intelligence rather than intellective intelligence and that these two types of intelligence are independent of one another (Epstein & Meier, 1989). Theory has suggested that constructive thinking is associated with life experience and with success in most areas of life with the exception of education which is more closely related to intellective intelligence. Epstein and Meier (1989) investigated these theoretical propositions by relating the CTI to eight criteria for successful living, work, love, social relationships, academic achievement, psychological symptoms, physical symptoms, self-discipline problems, and alcohol/drug problems.

Results of the study revealed that IQ scores were highly related to the Academic Achievement domain and weakly related to psychological symptoms and self-discipline problems (negatively). In contrast, the CTI global, emotional, and behavioral coping scales were not related to academic achievement but were significantly related to all of the other criteria for successful living. All three CTI scales were strongly related to love, social relationships, and psychological symptoms (negatively). In addition, the Behavior Coping scale was strongly related to success in work and to self-discipline problems (negatively) and weakly related to physical symptoms and alcohol/drug problems (both negatively). The Emotional Coping scale was strongly related to physical symptoms and alcohol/drug problems (both negatively) and weakly related to success at work. In comparing the relationships established by IQ with those established by the CTI scales, noted differences were obtained. It was particularly interesting to note that IQ was not significantly related to success in work; the question remains whether this finding would hold true for a subject sample drawn from the working public.

Epstein and Meier (1989) also compared the CTI to other measures associated with effective coping. On the Rotter Internal-External Locus of Control scale, externals were significantly less likely to have successful social relationships and more likely to have both psychological and physical symptoms.

This pattern of relationships was the opposite of that found for people with strong constructive thinking as measured by the CTI Global, Emotional, and Behavioral Coping scales. Also, the CTI Global scale made stronger positive associations with love and social relationships than the Attributional Style Questionnaire (ASQ) Composite scale, and the Emotional and Behavioral Coping scales made stronger associations on these criteria than the ASQ subscales. These studies and others investigating the similarities and differences between the scales of the CTI and a variety of established measures have supported the discriminant and construct validity of the instrument.

Taking a slightly different approach, Frauenknecht & Black (1995) have explored the coping skills domain by focusing on perceptions of problem solving proficiency. They developed the Social Problem-Solving Inventory for Adolescents to identify strengths and weaknesses in problem-solving which they define as a learned set of attitudes, behaviors, and skills. The theoretical basis for the test has come from the conceptualizations of D'Zurilla and Nezu (1990) and Black and Frauenknecht (1990; 1994). The test has three scales, the Automatic Process scale, the Problem Orientation scale, and the Problem-Solving Skills scale. The Problem Orientation scale has three subscales, Cognition, Emotion, and Behavior, and the Problem-Solving Skills scale has five subscales, Problem Identification, Alternative Generation,

Consequence Prediction, Implementation/Evaluation, and Reorganization. Internal reliabilities for the three primary scales were all above .81 indicating strong internal consistency. Similarly, the reliabilities for the Problem Orientation and Problem-Solving Skills subscales were quite good. The alphas for the Problem Orientation subscales ranged from a low of .70 for Cognition to a high of .90 for Emotion, and the coefficients for the Problem-Solving Skills subscales varied from a low of .78 for the Consequence Prediction subscale to a high of .92 for the Problem Identification scale.

Concurrent validity for the SPSI-A was supported by a moderate, negative correlation with the Personal Problems Checklist for Adolescents suggesting that adolescents with better problem solving skills perceive themselves to have fewer personal problems. A negative relationship was also found between the SPSI-A and a measure of global psychological distress from the Brief Symptom Inventory (BSI). The negative relationships between the Global Severity Index (BSI) and each of the subscales of the Problem Orientation scale were all strong which suggests that low scores on the Problem Orientation scale may indicate the need to further investigate degree of psychological distress in adolescents (Frauenknecht & Black, 1995).

Both the CTI and the SPSI-A have been designed to measure important dimensions of thinking that have an impact on coping in

all problem situations. The current study has attempted to see if these dimensions have a relationship with group defining variables. In combination with the state measures of appraisal and coping, they ought to provide a well-rounded picture of the cognitive processing of the patients.

Coping has been investigated both as a general, dispositional cognitive style, which is thought to be relatively stable over events, and as a situation-specific process which is expected to exhibit variation depending on the influences at hand (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986a). Several studies have examined the relationship between these two perspectives. The findings of one investigation indicated that, for the most part, dispositional coping styles did not predict situation-specific coping strategies (Carver & Scheier, 1994). Another study, however, using both the dispositional and situation-specific forms of the Coping Inventory for Stressful Situations (CISS), found a moderate association between coping styles and situational strategies (Endler & Parker, One explanation for the differences in the studies might be that the CISS had only a few broad, global scales which would be more likely to show relationships than an inventory with many specific coping options. Furthermore, authors have suggested that the influence of dispositional coping styles is more likely to be identified when coping strategies are examined across analogous

situations and when the degree of stressfulness is similar for the episodes, (Terry, 1994).

More Research Studies

The transactional theory has found that when a person makes decisions about the nature of a stressful episode, both personal characteristics and unique, situational factors influence the process. Folkman (1984) has reported that beliefs and commitments are thought to be important person-factors that shape judgments, and novelty, ambiguity, and predictability are significant situation-factors. Beliefs about control have been particularly relevant to the appraisal process. In a theoretical analysis, Folkman (1984) suggested that beliefs about control should be analyzed both as a person's generalized assessments of control, e.g., as locus of control, and as specific appraisals of potential for control in a specific situation. In other words, she has suggested that control be looked both as a state and trait dimension. So important is the issue of control to coping decisions that nearly all studies on secondary appraisal have contained questions on this area. Studies which have examined locus of control and perceptions of personal control in a particular situation have not always found a significant relationship between these two domains. Folkman and Lazarus (1984) have explained the weak relationship by suggesting that

locus of control disposition has more impact on control beliefs in particular situations when the encounters are ambiguous.

In a landmark study on situational stress, Folkman (1986a) and her associates found a strong relationship between control appraisals and coping strategies. Results indicated that subjects used different coping strategies depending upon their perceptions of control. When they perceived a situation as changeable, they accepted greater responsibility for the outcome, used more confrontive coping, problem-solving, and positive reappraisal. In situations subjects thought they had to accept, they were more likely to use distancing and escape-avoidance maneuvers. When subjects believed they needed more information to make effective coping decisions, they sought social support, exercised more self-control, and used problem-solved. Finally, in situations where subjects thought they had to hold back from doing what they wanted to do, they used more confrontive coping, self-control, and escape-avoidance.

In the same study, the authors found that subjects used different coping when their appraisals were strong versus weak. For example, when subjects indicated that threat to self esteem was high, they were more likely to exercise self-control, accept responsibility, use confrontive coping, and use more escape-avoidance maneuvers. In addition, they were less likely to seek social support. When subjects indicated that a goal at work was

threatened, they used more self-control and problem-solving

Attention/Overactivity and Aggression/Defiant Behaviors

The ability to accurately appraise stressful situations in order to adopt appropriate coping strategies is an activity in which inattention, overactivity, and aggressive behavior could be expected to interfere. Surprisingly, however, very little research has explored the cognitive factors associated with inattention, and most of the studies that have been done have looked at children and adolescents with attention deficit disorder, with and without hyperactivity. Although inattention and overactivity are defining symptoms in attention-deficit/ hyperactivity disorder, and aggression and defiance are central behaviors in conduct disorder and oppositional defiant disorder, these symptoms have often been found in other affective and personality disorders as well (Halperin, Matier, Bedi, Sharma, & Newcorn, 1992). Indeed, Halperin (1992) and his associates found no differences between psychiatric inpatients and ADHD children on measures of inattention.

Kendall and Panichelli-Mindel (1995) have discussed the deficiencies in information processing found in ADHD patients whom they have treated with cognitive-behavioral therapies. The most pronounced difficulties have been in behavior regulation and problem-solving, problems which have been hypothesized to involve

dysregulation of executive cognitive functions (Halperin, et al., 1992; Martin, Earleywine, Blackson, Vanyukov, Moss, and Tarter, 1994). In part, the problems ADHD children have with problem-solving have been linked to their failure to persevere on difficult tasks, a behavioral pattern believed to be linked to a helpless response style (Hoza, Pelham, Milich, Pillow, & McBride, 1993; Milich & Okazaki, 1991). In spite of their helpless response style, ADHD patients have not been found to have depressogenic attributions or to endorse depressive symptoms when compared to normal peers (Hoza, et al., 1993). Furthermore, these subjects have rated themselves just as high as controls on a measure of global self-worth. When evaluating positive outcomes, ADHD subjects have taken credit for the result just as their peers do; however, they have been less likely than their peers to make internal attributions for negative outcomes. Other researchers have also noted the self-enhancement bias in normal populations, but here, the failure to accept responsibility for problems reduces the chance that solutions might be found (Epstein & Meier, 1989). Some researchers have speculated that the lack of connection between negative life events and depressive symptoms in these patients might be due to some interference in cause-and-effect thinking (Hoza, et al., 1993).

More research has been done on the cognitive biases that are associated with aggression. According to Kendall and MacDonald

(1993), aggressive patients have been found to suffer from cognitive distortions and cognitive deficiencies, both of which hinder information processing. The most obvious distortion found in aggressive people has been their hostile attributional bias which is especially pronounced in ambiguous situations. These patients have been much more likely to assume that the intentions of others are hostile and threatening and to react to that misperception with an antagonistic verbal or physical response (Dodge, Price, Bachorowski, & Newman, 1990). Aggressive subjects have also been found to have poor problem-solving skills, to produce a reduced number of potential responses, and to generate solutions too hastily. All of these problems have increased the number of inaccurate and inappropriate answers aggressive subjects give (Kendall & Panichelli-Mindel, 1995; Lochman, Lampron, & Rabiner, 1989). Other research has found that patients who are both aggressive and ADHD have the worst prognosis, are the most likely to receive a conduct disorder diagnosis, and are most likely to be arrested (Satterfield, Swanson, Schell, & Lee, 1993).

In order to identify subjects who are inattentive/overactive and those who are aggressive/defiant, Loney and Milich (1982) developed two independent scales with five items each from the Conner's Teachers Rating scale. The new scale was called the IOWA Conners, and each item was rated on a four point Likert scale. The internal consistencies for the scales have been high, ranging

from .80 on a clinic sample to .87 on a school sample for the Inattention/Overactivity scale and from .87 on a clinic sample to .85 on a school sample for the Aggression/Defiant scale. The two scales have been moderately related with an average correlation of .63 which represents approximately 40% shared variance. In spite of the shared variance, discriminant and construct validity for each of the separate scales has been established in several studies. Satterfield (1994) and his associates found that the Satterfield Aggression/Defiant scale was highly correlated with the IOWA (AD) scale and unrelated to the IOWA (IO) scale. Both aggression scales discriminated groups high and low on this characteristic, and high scorers had greater arrest rates for felony charges. In another study, Milich, Loney, and Landau (1982) found that the (AD) scale predicted aggressive children and the (IO) scale predicted inattentive/overactive children in playroom observations. Finally, in another study, subjects were divided into four groups using the IOWA Conners, hyperactive (IO), aggressive (AD), hyperactive-aggressive, and controls. Using the Continuous Performance Test, measures of Inattention, Impulsivity, and Dyscontrol were taken. The hyperactive group scored significantly higher on the measure of Inattention, and the hyperactive-aggressive group scored significantly higher on the measure of impulsivity (Halperin, O'Brien, Newcorn, Healey, Pascualvaca, Wolf, & Young, 1990).

Restraint and Locked Seclusion

The use of locked seclusion and physical restraint in psychiatric inpatient settings has a long and not always savory history (Angold, 1989; Cotton, 1989; Soloff, 1984). In spite of objections to these practices by some clinicians, and increased legal scrutiny, these procedures have been, and currently are, widely implemented as a means of controlling patients who threaten harm to self or others, or who disrupt the therapeutic milieu on the wards (Cotton, 1989; Telintelo, Kuhlman, & Winget, 1983). Locked seclusion has been defined as involuntary confinement to, and isolation in, a padded room with a mattress, and physical restraint has been defined as involuntary physical restriction of a patient's movement by employing leather wrist and ankle bracelets or a straitjacket (Angold & Pickles, 1993; Davidson, Hemingway, & Wysocki, 1984; Guirguis & Durost, 1978; Myers, 1990). Some variation in the specifics of the two procedures has been found in different settings, but these descriptions are an accurate portrayal of the practices in many hospitals. Unfortunately, very little empirical research has been done on any of the issues relevant to these practices, and much of the research that has been done has suffered from serious methodological flaws (Irwin, 1987; Angold & Pickles, 1993). For example, these procedures are believed by many clinicians to be therapeutic adjuncts but no hard evidence supports such claims;

moreover, little is known about the long term outcomes of these practices (Crespi, 1990).

Most clinician have followed the rationale for seclusion and restraint first introduced by Thomas Gutheil (1978). He suggested that the use of seclusion was indicated when there was a need for containment, isolation, and a decrease in sensory input. Containment referred to the necessity of keeping the patient safe by preventing him/her from injuring self or others, or, in some cases, property. Isolation represented safety for the patient by removing them from frustrating social interactions which were distressing. Finally, decreasing sensory input was thought to provide relief from over-stimulation, thus preventing a breakdown in the patient's connection to reality. These theoretical notions continue to influence the treatment of adult and adolescent inpatients (Myers, 1990; Angold, 1989). Whether or not these principles reflect effective treatment measures has not been well documented.

In a theoretical paper, Cotton (1989) presented a rationale for the use of seclusion which takes into account developmental issues. She has suggested that normal adolescents struggle with defense systems and impulse control that are immature and often not trustworthy. Moreover, these problems are compounded for psychiatrically hospitalized adolescents, who often have substantially worse impulse control problems and fewer coping

resources. Kalogjera, Bedi, Watson, and Meyer (1989) have elaborated on these concerns and have suggested that often, disruptive adolescents fail to develop an adequate ability to use cognitions to handle their aggression, solve problems, and deal with stressful situations. Consequently, these adolescents have limited access to coping strategies beyond disruptive behavior with which to control frustration and tension. When other therapeutic methods have failed to bring a patient's behavior under control, these authors have suggested that seclusion and restraint should be used to help adolescents set limits, to teach them to leave disturbing situations in which they are losing control, and to help them develop more adaptive strategies for dealing with emotions and impulses (Cotton, 1989; Kalogjera et al., 1989).

Although most of the theoretical propositions concerning restraint and seclusion have not been empirically investigated, Millstein and Cotton (1989) have done a study on preadolescent patients to evaluate how well a composite of neurological, developmental, behavioral, and psychological characteristics predicted seclusion episodes. Over the course of their inquiry, 60% of the 102 children were placed in seclusion at least once. The children in the study were divided into two groups, those that had zero to six seclusion episodes and those that had seven or more seclusion episodes. When the groups were compared, the

patients with more frequent seclusions were found to have made more suicide attempts in the previous six months, to have histories of assaultive behaviors, to have more abnormal electroencephalograms, and to have been more likely to have histories of sexual and physical abuse. In addition, the frequently secluded group had lower scores on the verbal scale of the WISC-R even though there was no differences in the full scale IQ.

In another part of the same study, a smaller set of 36 children were divided into two groups based on whether they had been secluded zero to four times or more than four times and then compared on the scales of the Zeitlin Coping Inventory, an observational instrument. No differences were observed in general coping ability but several other dimensions were different. The frequently secluded group were found to be less able to meet their own survival and growth needs, and they tended to use coping strategies that were less productive and more rigid. In addition, they needed more external structure in their environments. The individual items of the scales were also compared for the two groups. The frequently secluded group was observed to be less able to endure frustration, cope with stress, control impulses, or accept limits set by authority figures. Furthermore, they did not understand what behaviors were expected of them, and they were less likely to generalize learning to new situations.

Although the findings in the Millstein and Cotton (1989) study were informative, the investigation was marred by several methodological problems which call into question their results. Angold and Pickles (1993) have criticized the study because the critical cut-off for group inclusion was determined by the number of seclusion episodes that optimized the group differences; a procedure that they suggested took advantage of chance. They have also criticized the study for using one-tail *t*-tests to compare groups without first predicting the direction of the outcome. If two-tailed *t*-tests had been used in a number of the comparisons, as Angold and Pickles recommended, some of the results would not have been significant.

Several other studies have explored different aspects of the seclusion and restraint experience, or they have examined characteristics of the patients who tend to have these experiences. Specifically, research has indicated that the most common precipitating event leading to seclusion or restraint is violent behavior or the threat of violent behavior. Garrison (1984) found that approximately a third of all incidents described as aggressive ended with seclusion, and that almost all incidents described as violent terminated with seclusion or, more often, restraint. Other interesting facts found in this study were that aggressive behavior was more likely to end in a seclusion experience if it was aimed at a staff member rather than another

patient, and if the staff member was male rather than female. In another report, disruption of the unit was given as the most common reason for seclusion but violence was a close second (Angold & Pickles, 1993). Erickson and Realmuto (1983) found that diagnosis was associated with different patterns of precipitating behavior. Hyperactive-impulsive patients were inclined to have sudden behavioral outbursts that ended in seclusion; whereas, conduct disordered patients engaged in slowly escalating disruptive behavior until staff responded with seclusion. Among young adults, the patient most likely to end in restraint or seclusion has been identified as being young, violent, and psychotic, but among adolescents, psychosis has been a less prominent feature (Angold, 1989).

Some proponents of seclusion and restraint have suggested that the goal of the restraint episode is for the patient to feel safe and supported while they regain control, but surveys assessing patients' attitudes about the experience have rarely upheld this ideal (Baradell, 1985; Myers, 1990). In short, most patients have found seclusion and restraint to be very negative events. Binder and McCoy (1983) interviewed adult patients who had been in seclusion within a week of the experience to identify their attitudes. They found that most of the patients, could not remember why they had been placed in seclusion and felt that the experience was the worst thing to happen to them during their

hospitalization. Common feelings associated with the experience were anger, frustration, confusion, helplessness, loneliness, and fear. Positive dimensions of the experience which were identified by a minority of patients included believing seclusion was a "well-deserved punishment" and valuing their freedom upon release (Binder & McCoy, 1983, p. 1052).

Unlike the previous study, Plutchik (1978) and his associates found that most patients were able to identify the aggressive behaviors that typically led to seclusion; however, the patients' attitudes toward the experience were not very different. Patients reported feeling bored, depressed, angry, confused, helpless, disgusted, and safe, but most also thought seclusion helped them calm down and behave more appropriately when they were back on the unit (Plutchik, Karasu, Conte, Siegel, & Jerrett, 1978). When asked about how they felt when they saw someone else being secluded, patients who had previously been secluded recounted that they felt angry and afraid it might happen to them, but patients who had never had the experience said that they felt safer and that the staff was doing the right thing.

In another study, Soliday (1985) gave the same questionnaire to patients and nursing staff and then compared their perceptions of seclusion. Not surprisingly, all of the comparisons between the groups were significantly different; however, answers were sometimes qualitatively similar but quantitatively different.

Some of the more interesting differences were the following. Most inpatients believed seclusion made the patients dislike staff, whereas staff did not. Most inpatients thought seclusion was never pleasant, whereas staff thought it was sometimes pleasant. Almost all of the staff thought seclusion never, or only sometimes, humiliated patients, whereas approximately half of the patients agreed with staff and half thought the experience was usually or always humiliating (Soliday, 1985). Although several studies have looked at the attitudes of adult patients toward seclusion and restraint, none that I am aware of have examined the attitudes of adolescents, and none has taken into account differences in attitude associated with inattention/overactivity and aggressive/defiant behaviors which have been studied here. More research has been needed on seclusion and restraint to guide our understanding of these patients and their treatment needs.

Other Measurement Instruments of Interest

A fifteen item Emotion Adjective Checklist was originally rationally devised by Folkman and Lazarus (1985) to measure the primary appraisal dimensions of threat, challenge, harm, and benefit. Subjects were asked to indicate on a five point Likert scale the extent to which they felt each of the emotions during a stressful situation. Carver and Scheier (1994) shortened the original scale to twelve emotions so that the four subscales would

each have the same number of adjectives defining them. Folkman and Lazarus (1985) reported that the alphas for each scale were high, and Carver and Scheier (1994)found that the average alpha for their shortened scales was .76. In the present study, this list of adjectives was used to evaluate current mood when specific situations were explored and to measure trait emotion when personality dispositions were examined.

The Brief Symptom Inventory (BSI) is a face valid index of psychiatric symptomatology which is a modified version of the revised Symptom Checklist-90 (SCL-90-R; Derogatis & Melisaratos, 1983). The Global Severity Index (GSI) is the principle composite scale, and was used in the current study as a global measure of psychological distress. It has been found to be the most valid of the three global scores on the BSI (Piersma, Boes, & Reaume, 1994). The BSI has been factor analyzed several times and the results have suggested that a single dimension accounts for most of the variance; these results have been consistent with factor analytic studies of the parent instrument (Piersma, et al., 1994). Furthermore, in a study that evaluated the reliability and validity of the scales of the BSI, the scales were found to have adequate reliability but limited convergent and discriminant validity (Boulet & Boss, 1991). As a unidimensional instrument, the BSI has been used successfully as an outcome measure to record clinical change both with adults and adolescents.

The Present Study

This study was designed to examine how adolescent male inpatients appraise and cope with stressful situations that occur in conjunction with their psychiatric hospitalizations. In order to accomplish this goal, several state situations which occur as a natural part of the hospitalization process were evaluated. Specifically, appraisal and coping were explored in relation to admission to the unit, to adjustment later in hospitalization, and to a problem that occurred during their stay. If the patient had a locked-seclusion or physical restraint experience, that incident served as their problem.

Cognitive theory has made the assumption that personality characteristics are enduring styles that have an important bearing on appraisal and coping processes. Among adolescents, inattentive/overactive and aggressive/defiant behaviors are two common styles which are believed to increase the likelihood for problems in information processing. The current research sought to add to our knowledge by exploring appraisal and coping differences for subjects identified as inattentive/overactive and/or aggressive/defiant. For this purpose, subjects were divided into four groups on the basis of the IOWA Conners. The four groups represented subjects who demonstrated only inattention/ overactivity (IO), those who displayed only aggression/defiance (AD), those who exhibited neither of these qualities (NIONAD), and

those who manifested them both (IOAD). A comparison of the cognitive appraisal and coping strategies of the groups across the state situations was made. In addition, more enduring cognitive skills, such as problem solving, emotional aptitudes, and behavioral tendencies, were explored because they can also be expected to have relationships with inattention/overactivity and aggression/ defiance. Finally, an effort was made to determine whether the IOWA groups coped in different ways when they perceived a situation to be high or low on the primary and secondary appraisal variables, such as on threat and centrality.

Much of the research on inattention/overactivity has been done on ADHD samples. The present study targeted a broader population, and sought to establish links among inattention/ overactivity, aggression/defiance, cognitive appraisal, and coping outcomes for adolescents in a typical inpatient setting. In addition to dividing the patients into groups according to whether they were inattentive/ overactive or aggressive/defiant, the patients were divided into groups based upon whether or not they had had a physical restraint experience. The characteristics of patients who end up in restraints has been under-researched. In this study, an effort was made to identify differences in appraisal, coping, constructive thinking, problem-solving, and emotions for the patients who had restraint experiences.

Because this study involved psychiatric inpatients, the group

of adolescents who manifested neither attention/ overactivity nor aggression/defiance (NIONAD) were not without psychopathology. This group was presumed to be a mixture of disorders that did not exhibit clinically significant levels of the identified group variables. They represented the psychiatric control group. Although speculations were made concerning the NIONAD group, no formal hypotheses were generated for them because the group was not operationally defined. They appeared in the analyses because predictions were made about the other groups which necessarily involved the NIONAD's. With this background in mind, the following hypotheses were proposed.

Hypotheses on the Relationships Among the IOWA Groups and Appraisal, Coping, and Outcome in the Hospitalization Situations: (See Table 1 for a Summary)

Hypothesis 1 (Appraisal Variables): Patients in the IOAD group were expected to appraise the stressful situations as being more threatening (Threat Scale), important to well-being (Centrality Scale), and more stressful (Stress Scale) than any other group. The AD group was expected to have the second highest ranking on these dimensions, and the IO group, the lowest. On the secondary appraisal measure, seeing oneself as having control in a situation (Control-By-Self), the AD group was expected to see

themselves as having more control than any other group. On the measure evaluating whether the situation was one that was uncontrollable (Uncontrollable-By-Anyone), the IO group was expected to believe that the situations were more uncontrollable than any other group.

Hypothesis 2 (Coping Variables): The AD group was expected to endorse more task-oriented coping in stressful situations than any other group. They were also expected to use more social diversion coping than any other group. In contrast, the IOAD's were expected to endorse using more emotion-oriented and distraction-oriented coping than any other group. Finally, the IO group was predicted to use more distraction-oriented coping than any other group.

Hypothesis 3 (Outcome Questions): Compared with the perceptions of other groups, the IOAD group was expected to believe the stressful situations turned out worse for them; whereas, the IO group was expected to believe the situations turned out better and were handled better.

Hypotheses Concerning the Relationships Among the IOWA Groups and the Trait Measures:

(See Table 2 for a Summary)

Hypothesis 4 (Global Severity Index): The IOAD group was expected to report more severe symptoms than any other

group, and the IO group were expected to report the least severe symptoms.

Hypothesis 5 (Constructive Thinking Inventory): The AD group was expected to report the highest level of global constructive thinking and the best behavioral coping of any of the groups; whereas, the IOAD's were expected to report the lowest levels of each of these dimensions. In addition, the IOAD group was predicted to indicate the highest use of emotional coping and the highest level of categorical thinking of any groups. The IO group was expected to report being more naively optimistic than any group.

Hypothesis 6 (Social Problem-Solving Inventory): The IOAD's were expected to have poorer alternative generation and consequence prediction skills than any other group, and the AD's were expected to be next poorest.

Hypothesis 7 (Emotion Adjective Checklist): The IOAD's were expected to have more negative emotion than any other group, and the AD's were expected to rank second. In contrast, the IO's were expected to have the least. The AD's were predicted to report the most positive affect of any of the groups, and the IO's were expected to report the next highest level of positive affect.

Hypotheses Concerning Coping Strategies Under High Versus Low Appraisal Conditions:

(See Table 3 for a summary)

Hypothesis 8 (Primary Appraisal & Stress): When threat, centrality, or stress were high, all groups were expected to report more use of emotional and avoidance coping. When centrality was reported as low, the AD group was expected to report more use of task coping.

Hypothesis 9 (Secondary Appraisal): When belief of personal control was high, all groups were expected to report more use of task coping. The AD group was expected to have the highest task scores. Also, when belief of personal control was high, all groups were expected to report less use of emotion-oriented and avoidance-oriented coping.

Hypotheses On Stress and Threat When Early Unit Experience is Compared With Late Unit Experience:

(See Table 4 for a summary)

Hypothesis 10 (Differences in Threat & Stress): All groups were expected to show a decline in threat and stress when early unit was compared with late unit experience. The IO's and AD's were expected to show a greater decrease in threat and stress at time two than the IOAD's.

Hypotheses Concerning the Restraint and Non-Restraint Pairs:

(See Table 5 for a Summary)

Hypothesis 11 (Appraisal Variables): The Restraint group was expected to report more threat, higher centrality, and more stress. No hypotheses were offered concerning the control variables but they were evaluated.

Hypothesis 12 (Coping Measures): In the state situations, the Restraint Group was expected to report using less task-oriented coping and more emotion-oriented and avoidance-oriented coping than the Non-Restraint group.

Hypothesis 13 (Trait Measures): The Restraint group was predicted to be more inattentive/overactive and aggressive/defiant than the Non-Restraint group. They were also expected to report more severe symptoms (GSI) and more negative emotion (Emotion-Trait).

Hypotheses Concerning Late Unit Stress for High Versus Low Constructive Thinking:

(See Tables 6 for a Summary)

Hypothesis 14 (Differences in Stress): When later adjustment to the unit was explored, subjects higher in global constructive thinking were expected to experience less stress than those with lower constructive thinking.

TABLE 1

HYPOTHESIZED OUTCOMES: THE IOWA GROUPS AND THE STATE MEASURES

STRESS APPRAISAL MEASURE	
Primary Appraisal	
Threat Appraisal:	IOAD > AD > NIONAD
Centrality:	IOAD > AD > NIONAD
Stress:	IOAD > AD > NIONAD
Secondary Appraisal	
Control-By-Self	AD > All Other Groups
COPING INVENTORY FOR STRESSFUL SITUATIONS	
Task-Oriented Coping:	AD > All Other Groups
Emotion-Oriented Coping:	IOAD > All Other Groups
Distraction Coping:	IOAD > All Other Groups
Social Diversion Coping:	AD > All Other Groups
OUTCOME QUESTIONS	
Turned Out:	IOAD < All Other Groups

TABLE 2

HYPOTHESIZED OUTCOMES: THE IOWA GROUPS AND THE TRAIT MEASURES

BRIEF SYMPTOM INVENTORY	
Global Severity Index:	IOAD > All Other Groups
CONSTRUCTIVE THINKING INVENTORY-S	
Global Constructive Thinking:	AD > NIONAD > IOAD
Emotional Coping:	IOAD < All Other Groups
Behavioral Coping:	AD > NIONAD > IOAD
Categorical Thinking:	IOAD > All Other Groups
SOCIAL PROBLEM-SOLVING INVENTORY-A	
Alternative Generation:	IOAD < AD < NIONAD
Consequence Prediction:	IOAD < AD < NIONAD
EMOTION CHECKLIST	
Negative Emotion:	IOAD > AD > NIONAD
Positive Emotion:	AD > All Other Groups

TABLE 3

HYPOTHESIZED OUTCOMES: THE IOWA GROUPS UNDER HIGH AND LOW APPRAISAL CONDITIONS

High vs. Low Conditions	Coping Strategies
Primary Appraisal	
High Threat:	IOAD: Emotion Coping ↑
	AD: Emotion Coping ↑
	NIONAD: Emotion Coping ↑
	IOAD: Avoidance Coping ↑
	AD: Avoidance Coping ↑
	NIONAD: Avoidance Coping ↑
High Centrality:	Same As Above For All Groups.
High Stress:	Same As Above For All Groups.
Low Centrality:	AD: Task Coping ↑
Secondary Appraisal	
High Control-By-Self:	AD: Task Coping ↑ > All Other Groups
	AD: Task Coping ↑
	IOAD: Task Coping ↑
	NIONAD: Task Coping ↑
	AD: Emotion Coping ↓
	IOAD: Emotion Coping ↓
	NIONAD: Emotion Coping ↓
	AD: Avoidance Coping ↓
	IOAD: Avoidance Coping ↓
	NIONAD: Avoidance Coping ↓

TABLE 4

HYPOTHESIZED OUTCOMES: DIFFERENCES IN THREAT AND STRESS BETWEEN THE EARLY AND LATE UNIT EXPERIENCES FOR THE IOWA GROUPS

STRESS APPRAISAL MEASURE	EARLY COMPARED WITH LATE UNIT
Primary Appraisal	
Threat Appraisal:	All Groups ↓ AD [Difference] > IOAD [Difference]
Stress:	Same As Above

TABLE 5

HYPOTHESIZED RELATIONSHIPS BETWEEN THE RESTRAINT AND NON-RESTRAINT PAIRS ACROSS THE STATE AND TRAIT MEASURES

STRESS APPRAISAL MEASURE	
Primary Appraisal	
Threat Appraisal:	Restraint > Non-Restraint
Centrality:	Restraint > Non-Restraint
Stress:	Restraint > Non-Restraint
Secondary Appraisal	No Hypotheses, but results will be reported.
COPING INVENTORY FOR STRESSFUL SITUATIONS	
Task-Oriented Coping:	Restraint < Non-Restraint
Emotion-Oriented Coping:	Restraint > Non-Restraint
Distraction Coping:	Restraint > Non-Restraint
IOWA	
Inattention/Overactivity:	Restraint > Non-Restraint
Aggression/Defiance:	Restraint > Non-Restraint
BRIEF SYMPTOM INVENTORY	
Global Severity Index:	Restraint > Non-Restraint
EMOTION ADJECTIVE CHECKLIST	
Negative Emotion:	Restraint > Non-Restraint

TABLE 6

HYPOTHESIZED OUTCOMES: HIGH VERSUS LOW CONSTRUCTIVE THINKING AND STRESS

Stress Appraisal Measure	Outcome
Stress	High GCT < Low GCT

CHAPTER 2

METHOD

Subjects

In the present study, 39 male adolescents between the ages of 11¾ and 17 participated. They were consecutive minor voluntary and court ordered voluntary admissions to the Milwaukee County Child and Adolescent Treatment Center (CATC). None of the inpatients who were wards of the state took part because consent could not be obtained within the needed time frame. Before a child could take part, a parent or guardian gave consent, and the staff gave their approval. Participation did not affect the child's treatment at CATC. One inpatient refused to participate. All of the measures were completed by 25 subjects. The other 14 subjects completed all of the trait measures and varying numbers of the state measures. The most frequent reason for not completing all measures was discharge.

Materials

The adolescent inpatients were asked to complete the following measurement instruments for each of the three stressful situations that were evaluated: an Emotional Adjective Checklist

(State-Emotion), the Stress Appraisal Measure (SAM), the Coping Inventory for Stressful Situations (CISS), and two immediate outcome questions. They were also asked to complete several self-report instruments: the Brief Symptom Inventory (BSI), an Emotional Adjective Checklist (Trait Emotion), the Social Problem-Solving Inventory for Adolescents (SPSI-A) and the Constructive Thinking Inventory-Short Form (CTI-S). These questionnaires provided a description of personality characteristics of the subjects and an understanding of their dispositional cognitive coping strengths and weaknesses.

The Stress Appraisal Measure (SAM; Peacock & Wong, 1990) is a 28 item self-report questionnaire designed to examine a person's subjective experience of a particular event instead of measuring a person's general response to all stressful situations. The questionnaire is composed of three primary appraisal scales, three secondary appraisal scales, and a scale measuring the degree of stress felt in the situation. The items are measured by a five point Likert scale (1=not at all and 5=a great deal). The scales support the cognitive relational theory of stress and coping proposed by Lazarus and Folkman (1984). The three primary appraisal scales are Threat, Challenge, and Centrality, and the three secondary appraisal scales are the Controllable-By-Self Scale, the Controllable-By-Others Scale, and the Uncontrollable-By-Anyone Scale (See Appendix C).

The Coping Inventory For Stressful Situations (CISS; Endler & Parker, 1994) is a 48 item questionnaire with three scales measuring Task-Oriented coping, Emotion-Oriented coping, and Avoidance-Oriented coping. The Avoidance items have been found to make up two subscales, Distraction Coping and Social Diversion coping. In most studies, the Distraction Coping and Social Diversion Coping scales are considered independently although the correlations between these two scales are somewhat higher than is true for the other scales. The scale was used to measure coping strategies in the specific situations and was scored on a five point Likert scale. Nine of the items on the original scale were changed because the original items were activities that inpatients could not do. The new items were chosen to reflect the intent of the original scale. For example, item 9 on the original scale was, "window shop," which was changed to "play games by myself," and item 23, "go to a party," was changed to "have fun with the kids in the main living area" (See Appendix D).

Subjects' perceptions of the immediate outcome of the stressful situations will be evaluated by two questions: 1) How do you think the situation turned out for you? and 2) How do you think you handled the situation? The response format will be a five point Likert scale with 1=Very Badly and 5=Very Well. These questions will be treated as independent items (See Appendix E).

The Brief Symptom Inventory is a 53 item modified version of

the revised Symptom Checklist-90 (SCL-90-R; Derogatis & Melisaratos, 1983). The response format is a 5 point Likert scale with 0=not at all and 4=extremely. In this study, the Global Severity Index was used as a measure of psychological distress (See Appendix G).

The Emotion Adjective Checklist is a short scale composed of fourteen emotions which subjects rated on a five point Likert scale. Originally, Folkman and Lazarus (1985) rationally devised the scale, using twelve adjectives, to measure four emotional areas: threat, challenge, harm, and benefit. For current purposes, the adjectives that make up the threat and harm scales (worried, scared, anxious, angry, disappointed, and guilty), plus "sad," were used to measure negative affect, and the adjectives that make up the challenge and benefit scales (confident, hopeful, eager, pleased, happy, and relieved), plus "cheerful" were used to measure positive affect. The list of emotions was used to gauge current mood (state) when the state situations were explored and to measure trait emotion when the dispositional characteristics were examined (See Appendices B and F).

The Constructive Thinking Inventory-Short Form (CTI-S; Epstein & Meier, 1989) is a 52 item dispositional coping questionnaire designed to measure automatic, habitual factors believed to be important in constructive and destructive thinking. The inventory has a Global Constructive Thinking scale and five

specific scales yielding scores on Emotional Coping, Behavioral Coping, Categorical Thinking, Naive Optimism, and Esoteric Thinking. Subjects responded on a five point Likert scale (See Appendix H).

The Social Problem-Solving Inventory for Adolescents (SPSI-A; Frauenknecht & Black, 1995) is a 64 item self-report inventory that measures attitudes, behaviors, and skills associated with problem-solving ability. The inventory is composed of three scales, the Automatic Process scale (APS), the Problem Orientation scale (POS), and the Problem-Solving Skills scale (PSSS). The Problem Orientation scale (POS) is composed of three subscales, Cognition (POCOG), Emotion (POEMO), and Behavior (POBEH). The Problem-Solving Skills Scale (PSSS) has four subscales, Problem Identification (IDENT), Alternative Generation (ALTGEN), Consequence Prediction (CONPRE), Implementation/Evaluation (IMPEV), and Reorganization (REORG). Responses were made on a five point Likert scale (See Appendix I).

The IOWA Conners is a short questionnaire composed of two five item scales, one measuring inattention/overactivity and one measuring aggression/defiant behavior. The scale was developed by Loney and Milich (1982) from the Conner's Teachers Rating scale. Research on the scale suggests that an Inattention/Overactivity screening score of 7 be used for clinical purposes and 11 for research purposes, and an Aggression/Defiant screening score of 4

be used for clinical purposes and 7 for research purposes (See Appendix J).

Procedure

Inpatients who were minor voluntaries or court ordered voluntaries were given the opportunity to participate in the research project when they arrived at the Milwaukee County Child and Adolescent Treatment Center (CATC). The process began with the researcher contacting the parents or guardians of a new admit, explaining the project, and asking for consent to include the adolescent in the study. Most parents/guardians were contacted by phone, and their verbal consent was witnessed by staff. When consent was obtained, staff were consulted to insure that they had no objections. Finally, the project was explained to the inpatient, and he was asked if he wanted to participate. A prepared information sheet was given to, or read to, patients and their parents/guardians (See Appendix 1). For participating, patients could choose a juice box and candy snack each time they had a testing session, and they were given five dollars when they completed all of the questionnaires. One parent initially refused, but later gave consent, and one patient refused to take part.

Demographic information, hospitalization information, diagnoses, and historical information were obtained from the

hospital records for each child. An extensive analysis of this information is presented in the Subject Characterization section of this report. Demographic information included heritage, age, socioeconomic status (SES), and IQ. The predominant ethnic groups were African American and European American. Most of the subjects ranged in age from 12-15 years old. Two 11 year old were included in the study because they were within two or three months of being 12, and they had been placed on the adolescent unit because they fit best with this group of patients. Socioeconomic status was a simple determination of whether or not a parent or guardian worked or was receiving public assistance. The IQ information was based on a variety of sources that were available in the records. All inpatients were routinely given the Test of Nonverbal Intelligence-2 (TONI-2) which gives an estimate of IQ; for most patients, this estimate determined the IQ range. For some subjects, the IQ was taken from more extensive psychological evaluations which included a WISC-R or WISC-3 (Wechsler Intelligence Scale For Children).

The collection of data began as soon as consents were obtained, usually between two and five days after admission. The researcher met with the patients three or four times, depending on how long the patient wanted to work at one sitting. The Emotion Adjective Checklist was used to determine mood at each of the stressful situation evaluations, and to estimate long-term mood

when the trait measures were completed. The three stressful situations were an exploration of early unit experience, late unit experience, and some problem that occurred during hospitalization. When the subject had had a restraint incident, that situation was used as the problem. Most subjects had a time period of 12-14 days between the investigation of the early unit experience and the late unit experience. The evaluations of the three stressful situations always began with a brief interview to focus the subject on the event. When the early unit adjustment was explored, the subject was asked during the interview period to think about the problems that brought him to the inpatient unit, the problems he needed to work on, and about his experience on the unit. During the late unit interview, the subject was asked to think about living on the unit at that point in time, about the problems he was working on, and about what was going to be happening next. The problem situation was examined in much the same manner. The SAM, CISS, and Outcome Questions were used to evaluate each of the state situations. The BSI, CTI-S, and SPSI-A were given to explore severity of symptoms, constructive thinking patterns, problem orientation, and problem-solving.

Toward the end of a patient's testing sessions, two or more of the nursing staff or occupational therapists were asked to complete the IOWA for the subject. The scores were averaged to give each subject a rating for inattention/overactivity (IO) and

one for aggression/defiance (AD). The IO scores ranged from 0 to 12, and the AD scores ranged from 0 to 15. The IO and AD scores reflected observed behavior and did not necessarily correspond with historical data. Loney & Milich (1982) recommended using clinical cut-offs of 7 for IO and 4 for AD, and research cut-offs of 11 for IO and 7 for AD. When the clinical, more inclusive, value of 7 was applied to the data in the current study, only nine subjects were considered IO. The stricter, research value placed only four subjects in the IO group. In contrast, the opposite phenomenon occurred with the AD critical cut-offs. Using the clinical value of 4, thirty subjects ended up in the AD group. Switching to the research level left seventeen in the AD group.

In an effort to create meaningful groups for the current subject pool, a cut-off for each group was set at the mean. Subjects who scored 5 or more on the IO scale were designated as high in inattention/overactivity. Subjects who scored a 6 or above on the AD scale were designated high in aggression/defiance. This yielded 18 subjects high on IO and 22 high on AD. Many of the patients were high on both dimensions which determined the following groups. A group of 15, the NIONAD's, did not reach the critical value in either category. A group of 16, the IOAD's, reached the critical value in both categories. A group of 6, the AD's, reached the cut-off for AD only, and a group of 2, the IO's, reached the cut-off for IO only. Because of the very small sample

size, the IO group was dropped from the study. The two IO subjects did not appear in any of the analyses involving the IOWA groups but they did appear in analyses involving other groupings (See Table 7 for the IOWA statistics).

Subject Characteristics

Demographic data included heritage, age, SES, and IQ (See Table 8 for demographic information). The ethnic backgrounds of the patients included nineteen subjects who were European American, seventeen who were African American, and three who were Spanish American. The ages of most of the subjects fell in the first two categories with fourteen subjects in the 12-13 year old group, nineteen in the 14-15 year old group, and six in the 16-17 year old group. Almost 60% of the subjects had IQ's in the average range, and roughly another 30% were in the high and low average ranges. Approximately 62% of the parents were employed, and 30% percent were receiving public assistance. Most of the employed parents either held menial or blue collar jobs.

Hospitalization information included rehospitalizations, length of hospitalization, suicidal ideation or attempts, and legal status (See Table 9). A little over one-third of the patients had never had a prior psychiatric hospitalization. About a third had one previous admission, and the rest had had several. Approximately 35% of the patients spent two weeks or less in the

TABLE 7

DESCRIPTIVE STATISTICS FOR THE DATA ON THE INATTENTION/OVERACTIVITY AND AGGRESSION/DEFIANT GROUPS

Group	Mean	Median	Range	Minimum	Maximum
Inattentive/ Overactivity (SD)	4.59 (3.19)	4.00	12	0	12
Aggression/ Defiant (SD)	6.18 (3.70)	6.00	15	0	15

IO Cut-Off: 5.00 and Above

AD Cut-Off: 6.00 and Above

IO = 18 NIO = 21

AD = 22 NAD = 17

FINAL GROUPS:

NIONAD = 15 AD = 6

IOAD = 16 IO = 2

TABLE 8

DEMOGRAPHIC DATA

	Percent	Count
AGE		
12-13 Years Old	35.9%	(14)
14-15 Years Old	48.7%	(19)
16-17 Years Old	15.4%	(6)
Total	100.0%	(39)
HERITAGE		
African American	43.6%	(17)
Spanish American	48.7%	(19)
European American	7.7%	(3)
Total	100.0%	(39)
SOCIOECONOMIC-ECONOMIC STATUS		
Public Assistance	30.8%	(12)
Employed	61.5%	(24)
Unknown	7.7%	(3)
Total	100.0%	(39)
IQ		
Borderline (70-79)	7.7%	(3)
Low Average (80-89)	17.9%	(7)
Average (90-109)	59.0%	(23)
High Average (110-119)	10.3%	(4)
Superior (120-129)	5.1%	(2)
Total	100.0%	(39)

TABLE 9

HOSPITALIZATION INFORMATION

	Percent	Count
PREVIOUS HOSPITALIZATIONS		
None	38.5%	(15)
One	33.3%	(13)
More Than One	28.2%	(11)
Total	100.0%	(39)
LENGTH OF HOSPITALIZATION		
Information Unknown	5.1%	(2)
1-2 Weeks	35.9%	(14)
3-4 Weeks	17.9%	(7)
5-7 Weeks	17.9%	(7)
8-10 Weeks	12.8%	(5)
11-13 Weeks	10.3%	(4)
Total	100.0%	(39)
SUICIDAL IDEATION OR ATTEMPT		
No Episodes	69.2%	(27)
One or More Episodes	30.8%	(12)
Total	100.0%	(39)
LEGAL STATUS		
Minor Voluntary	46.2%	(18)
Court Ordered	53.8%	(21)
Total	100.0%	(39)

hospital. Another 35% spent from three to seven weeks on the ward. The rest were there for longer periods. Slightly less than half of the subjects were minor voluntaries, and the other half were court-ordered voluntaries. Roughly thirty percent of the inpatients had expressed suicidal ideation or had made a suicide attempt.

The subjects averaged slightly over two diagnoses apiece (See Table 10). The most common diagnosis was conduct disorder, followed by attention deficit hyperactive disorder (ADHD), and then mood or anxiety disorders. Nearly one quarter of the subjects had substance abuse problems. Conduct disordered patients were almost equally spread across all of the age groups; whereas, patients with ADHD were more frequently in the 12-13 age group, and those with mood and anxiety disorders were slightly more often in the 14-15 age group.

Historical information covered documented accounts of aggression, impulsivity, and abuse (See Table 11). Roughly 15% of the subjects had no previous history of aggression. At the other end of the spectrum, slightly less than a quarter of the subjects had histories that included threats of murder, threats with a deadly weapon, assaults with a deadly weapon, dangerous assaults, and sexual assaults. Approximately 25% of the patients had no history of impulsivity; whereas, 40% had records of impulsive acts and another 30% had previous diagnoses of ADHD. Almost 65% of the

TABLE 10

PATIENT DIAGNOSIS BY AGE OF THE PATIENT

	AGE			
	Total Sample	12-13 Years Old	14-15 Years Old	16-17 Years Old
DIAGNOSIS				
Conduct Disorder	56.4%	57.1%	57.9%	50.0%
Count	(22)	(8)	(11)	(3)
Attention-Deficit/ Hyperactivity	38.5%	50.0%	31.6%	33.3%
Count	(15)	(7)	(6)	(2)
Mood or Anxiety	35.9%	28.6%	42.1%	33.3%
Count	(14)	(4)	(8)	(2)
Substance Abuse	23.1%	14.3%	26.3%	33.3%
Count	(9)	(2)	(5)	(2)
Impulse Control or Bipolar	20.5%	14.3%	21.1%	33.3%
Count	(8)	(2)	(4)	(2)
Adjustment or Oppositional Defiant	17.9%	21.4%	15.8%	16.7%
Count	(7)	(3)	(3)	(1)
Psychotic Disorders	12.8%	14.3%	10.5%	16.7%
Count	(5)	(2)	(2)	(1)
Post Traumatic Stress	10.3%	7.1%	15.8%	.0%
Count	(4)	(1)	(3)	(0)
Other Disorders	10.3%	.0%	15.8%	16.7%
Count	(4)	(0)	(3)	(1)
Total Number of Diagnoses	225.6% (88)	207.1% (29)	236.8% (45)	233.3% (14)
Average Number of Diagnoses per Patient	2.3	2.1	2.4	2.3

TABLE 11

HISTORICAL INFORMATION

	Percent	Count
History of Aggression		
None	15.4%	(6)
Episodes Associated With Psychiatric Illness Only	5.1%	(2)
Property Damage or Minor Assault	56.4%	(22)
Threat With A Deadly Weapon or Threat of Death	10.3%	(4)
Assault With A Deadly Weapon or Dangerous or Sexual Assault	12.8%	(5)
Total	100.0%	(39)
History Of Impulsivity		
None	23.1%	(9)
Record of Impulsive Acts	38.5%	(15)
Diagnosis of ADHD by History	28.2%	(11)
History of ADHD and an Impulse-Control Disorder.	10.3%	(4)
Total	100.0%	(39)
History of Abuse		
None	64.1%	(25)
Physical Abuse/Witness to Extreme Violence/Severe Neglect	20.5%	(8)
Sexual Abuse	5.1%	(2)
Both of the Above	10.3%	(4)
Total	100.0%	(39)

subjects had no history of abuse. The rest of the boys had suffered physical abuse, sexual abuse, severe neglect, or had witnessed extreme violence, usually to a loved one.

The IOWA Groups

The demographic data in relation to the three IOWA groups revealed no major inequalities across the groups (See Table 12). All three IOWA groups were composed of approximately the same number of individuals from the two predominant ethnic affiliations. Approximately the same percentage of each group was filled by a common age level, and IQ was distributed fairly evenly across the groups. Some differences among groups existed on the hospitalization information (See Table 13). Over 60% of the AD's and NIONAD's were court-ordered, compared with a little over 40% of the IOAD's. In addition, over 80% of the IOAD's had been hospitalized previously, compared with roughly 50% of the other groups. The IOAD's and AD's also tended to stay in the hospital longer than the NIONAD's.

Differences and similarities in history of aggression, impulsiveness, and abuse also existed for the three groups (See Tables 14-16). All three groups contained a substantial number of individuals with an aggressive history. The IOAD's had the smallest percentage of boys with serious criminal backgrounds and the AD's had the largest, but not by much. In contrast, the

TABLE 12

DEMOGRAPHICS ACROSS THE IOWA GROUPS

	IOWA			
	NIONAD	AD	IOAD	IO
HERITAGE				
African American	46.7%	50.0%	43.8%	.0%
Count	(7)	(3)	(7)	(0)
Spanish American	6.7%	.0%	12.5%	.0%
Count	(1)	(0)	(2)	(0)
European American	46.7%	50.0%	43.8	100.0%
Count	(7)	(3)	(7)	(2)
Total	100.0%	100.0%	100.0%	100.0%
Count	(15)	(6)	(16)	(2)
AGE				
12-13 Years Old	33.3%	33.3%	37.5%	50.0%
Count	(5)	(2)	(6)	(1)
14-15 Years Old	53.3%	50.0%	43.8%	50.0%
Count	(8)	(3)	(7)	(1)
16-17 Years Old	13.3%	16.7%	18.8%	.0%
Count	(2)	(1)	(3)	(0)
Total	100.0%	100.0%	100.0%	100.0%
Count	(15)	(6)	(16)	(2)

TABLE 12 (Continued)

DEMOGRAPHICS ACROSS THE IOWA GROUPS

	IOWA			
	NIONAD	AD	IOAD	IO
IQ				
Borderline (70-79)	6.7%	.0%	12.5%	.0%
Count	(1)	(0)	(2)	(0)
Low Average (80-89)	20.0%	33.3%	6.3%	50.0%
Count	(3)	(2)	(1)	(1)
Average (90-109)	60.0%	50.0%	68.8%	.0%
Count	(9)	(3)	(11)	(0)
High Average (110-119)	6.7%	.0%	12.5%	50.0%
Count	(1)	(0)	(2)	(1)
Superior (120-129)	6.7%	16.7%	.0%	.0%
Count	(1)	(1)	(0)	(0)
Total	100.0%	100.0%	100.0%	100.0%
Count	(15)	(6)	(16)	(2)
Legal Status				
Minor Voluntary	40.0%	33.3%	56.3%	50.0%
Count	(6)	(2)	(9)	(1)
Court Ordered	60.0%	66.7%	43.8%	50.0%
Count	(9)	(4)	(7)	(1)
Total	100.0%	100.0%	100.0%	100.0%
Count	(15)	(6)	(16)	(2)

TABLE 13

HOSPITALIZATION INFORMATION ACROSS THE IOWA GROUPS

	IOWA			
	NIONAD	AD	IOAD	IO
Previous Hospitalizations				
None	53.3%	50.0%	18.8%	50.0%
Count	(8)	(3)	(3)	(1)
One	20.0%	16.7%	56.3%	.0%
Count	(3)	(1)	(9)	(0)
More Than One	26.7%	33.3%	25.0%	50.0%
Count	(4)	(2)	(4)	(1)
Total	100.0%	100.0%	100.0%	100.0%
Count	(15)	(6)	(16)	(2)
Length of Hospitalization				
Information Unknown	.0%	.0%	12.5%	.0%
Count	(0)	(0)	(2)	(0)
1-2 Weeks	53.3%	16.7%	31.3%	.0%
Count	(8)	(1)	(5)	(0)
3-4 Weeks	20.0%	33.3%	6.3%	50.0%
Count	(3)	(2)	(1)	(1)
5-7 Weeks	6.7%	33.3%	25.0%	.0%
Count	(1)	(2)	(4)	(0)
8-10 Weeks	6.7%	16.7%	12.5%	50.0%
Count	(1)	(1)	(2)	(1)
11-13 Weeks	13.3%	.0%	12.5%	.0%
Count	(2)	(0)	(2)	(0)
Total	100.0%	100.0%	100.0%	100.0%
Count	(15)	(6)	(16)	(2)

TABLE 14

HISTORY OF AGGRESSION ACROSS THE IOWA GROUPS

	IOWA			
	NIONAD	AD	IOAD	IO
History of Aggression				
None	26.7%	.0%	6.3%	50.0%
Count	(4)	(0)	(1)	(1)
Episodes Associated With Psychiatric Illness Only	.0%	.0%	6.3%	50.0%
Count	(0)	(0)	(1)	(1)
Property Damage or Minor Assault	40.0%	66.7%	75.0%	.0%
Count	(6)	(4)	(12)	(0)
Threat With A Deadly Weapon or Threat of Death	20.0%	.0%	6.3%	.0%
Count	(3)	(0)	(1)	(0)
Assault With A Deadly Weapon or Dangerous or Sexual Assault	13.3%	33.3%	6.3%	.0%
Count	(2)	(2)	(1)	(0)
Total	100.0%	100.0%	100.0%	100.0%
Count	(15)	(6)	(16)	(2)

TABLE 15

HISTORY OF IMPULSIVITY ACROSS THE IOWA GROUPS

	IOWA			
	NIONAD	AD	IOAD	IO
History Of Impulsivity				
None	40.0%	.0%	18.8%	.0%
Count	(6)	(0)	(3)	(0)
Record of Impulsive Acts	40.0%	33.3%	43.8%	.0%
Count	(6)	(2)	(7)	(0)
Diagnosis of ADHD by History	20.0%	33.3%	25.0%	100.0%
Count	(3)	(2)	(4)	(2)
History of ADHD and an Impulse-Control Disorder	.0%	33.3%	12.5%	.0%
Count	(0)	(2)	(2)	(0)
Total	100.0%	100.0%	100.0%	100.0%
Count	(15)	(6)	(16)	(2)

TABLE 16

HISTORY OF ABUSE ACROSS THE IOWA GROUPS

	IOWA			
	NIONAD	AD	IOAD	IO
History of Abuse				
None	80.0%	50.0%	62.5%	.0%
Count	(12)	(3)	(10)	(0)
Physical Abuse/Witness to Extreme Violence/Severe Neglect	6.7%	33.3%	25.0%	50.0%
Count	(1)	(2)	(4)	(1)
Sexual Abuse	6.7%	16.7%	.0%	.0%
Count	(1)	(1)	(0)	(0)
Both of the Above	6.7%	.0%	12.5%	50.0%
Count	(1)	(0)	(2)	(1)
Total	100.0%	100.0%	100.0%	100.0%
Count	(15)	(6)	(16)	(2)

NIONAD's had the smallest percentage of boys with ADHD and no one with an impulse control disorder. The AD's and IOAD's had a greater percentage of both, especially the AD's; however, any observations about the parameter values of the AD group must be viewed with reservations because their numbers are so small. Finally, the NIONAD's had the smallest percentage of subjects with a history of abuse. Contrarily, roughly 40%-50% of the boys in the other two groups fell into the abused category.

The groups also differed in the principle types of diagnoses they received (See Table 17). Over 60% of the IOAD's and AD's were conduct disordered, compared with just 40% of the NIONAD's. Similarly, these two groups also had a substantially higher percentage of boys with ADHD, impulse control disorders, and bipolar disorders. On the other hand, over half of the NIONAD's had a diagnosis of mood or anxiety disorder.

The Restraint and Non-Restraint Groups

The subjects were also divided into groups based upon whether or not they had been placed in locked seclusion or restraint. Among the subjects in the current study, no patient experienced locked seclusion without ultimately experiencing restraint as well. Of the 14 subjects who were placed in restraints, 11 finished all of the measures. The predominant ethnic categories were fairly evenly divided between the restraint and non-restraint

TABLE 17

DIAGNOSES ACROSS THE IOWA GROUPS

	IOWA			
	NIONAD	AD	IOAD	IO
DIAGNOSIS				
Conduct Disorder	40.0%	66.7%	62.5%	100.0%
Count	(6)	(4)	(10)	(2)
Attention-Deficit/ Hyperactivity	20.0%	66.7%	37.5%	100.0%
Count	(3)	(4)	(6)	(2)
Mood or Anxiety	53.3%	16.7%	31.3%	.0%
Count	(8)	(1)	(5)	(0)
Substance Abuse	26.7%	33.3%	18.8%	.0%
Count	(4)	(2)	(3)	(0)
Impulse Control or Bipolar	6.7%	33.3%	31.3%	.0%
Count	(1)	(2)	(5)	(0)
Adjustment or Oppositional Defiant	26.7%	16.7%	12.5%	.0%
Count	(4)	(1)	(2)	(0)
Psychotic Disorders	13.3%	.0%	12.5%	50.0%
Count	(2)	(0)	(2)	(1)
Post Traumatic Stress	6.7%	.0%	12.5%	50.0%
Count	(1)	(0)	(2)	(1)
Other Disorders	6.7%	16.7%	6.3%	50.0%
Count	(1)	(1)	(1)	(1)
Total	200.0%	250.0%	225.0%	350.0%
Base of Responses	(30)	(15)	(36)	(7)

groups. In addition, the three age levels were represented in both groups. Slightly more 12-15 year olds, and somewhat fewer 16-17 year olds characterized the restraint subjects. Also, IQ and socioeconomic status did not distinguish one group from the other (See Table 18).

A few group differences emerged in the hospitalization information and in the diagnostic data (See Table 19-20). Over 70% of the restrained patients had been previously hospitalized compared with roughly 55% of the non-restrained patients. Moreover, 60% of the non-restrained group were court-ordered, compared with a little over 40% of the restrained subjects. Both groups had approximately the same percentage of diagnoses of conduct disorder and fairly similar percentages of ADHD. However, they had widely different percentages of impulse control disorder/ bipolar disorder and mood/anxiety disorder with the restrained group receiving most of the former and the non-restrained group receiving most of the latter.

Restraint and non-restraint subjects differed on all three historical measures (See Tables 21 & 22). Almost one-fourth of the non-restraint group had no history of aggression; whereas, every restraint subject had some history of the same. Close to 50% of the non-restraint subjects and 65% of the restraint subjects had histories of minor aggression. Both groups had roughly the same percentage of subjects with serious histories,

TABLE 18

DEMOGRAPHIC INFORMATION ACROSS THE RESTRAINED AND NON-RESTRAINED GROUPS

	Non-Restrained Group		Restrained Group	
	Percent	Count	Percent	Count
AGE				
12-13 Years Old	32.0%	(8)	42.9%	(6)
14-15 Years Old	48.0%	(12)	50.0%	(7)
16-17 Years Old	20.0%	(5)	7.1%	(1)
Total	100.0%	(25)	100.0%	(14)
HERITAGE				
African American	44.0%	(11)	42.9%	(6)
Spanish American	8.0%	(2)	7.1%	(1)
European American	48.0%	(12)	50.0%	(7)
Total	100.0%	(25)	100.0%	(14)
SOCIOECONOMIC-ECONOMIC STATUS				
Public Assistance	32.0%	(8)	28.6%	(4)
Employed	56.0%	(14)	71.4%	(10)
Unknown	12.0%	(3)	.0%	(0)
Total	100.0%	(25)	100.0%	(14)
IQ				
Borderline (70-79)	4.0%	(1)	14.3%	(2)
Low Average (80-89)	24.0%	(6)	7.1%	(1)
Average (90-109)	60.0%	(15)	57.1%	(8)
High Average (110-119)	8.0%	(2)	14.3%	(2)
Superior (120-129)	4.0%	(1)	7.1%	(1)
Total	100.0%	(25)	100.0%	(14)

TABLE 19

HOSPITALIZATION INFORMATION ACROSS THE RESTRAINED AND NON-RESTRAINED GROUPS

	Non-Restrained Group		Restrained Group	
	Percent	Count	Percent	Count
Previous Hospitalizations				
None	44.0%	(11)	28.6%	(4)
One	36.0%	(9)	28.6%	(4)
More Than One	20.0%	(5)	42.9%	(6)
Total	100.0%	(25)	100.0%	(14)
Length of Hospitalization				
Information Unknown	4.0%	(1)	7.1%	(1)
1-2 Weeks	44.0%	(11)	21.4%	(3)
3-4 Weeks	24.0%	(6)	7.1%	(1)
5-7 Weeks	8.0%	(2)	35.7%	(5)
8-10 Weeks	12.0%	(3)	14.3%	(2)
11-13 Weeks	8.0%	(2)	14.3%	(2)
Total	100.0%	(25)	100.0%	(14)
Suicidal Ideation or Attempt				
No Episodes	60.0%	(15)	85.7%	(12)
One or More Episodes	40.0%	(10)	14.3%	(2)
Total	100.0%	(25)	100.0%	(14)
Legal Status				
Minor Voluntary	40.0%	(10)	57.1%	(8)
Court Ordered	60.0%	(15)	42.9%	(6)
Total	100.0%	(25)	100.0%	(14)

TABLE 20

DIAGNOSES ACROSS THE RESTRAINED AND NON-RESTRAINED GROUPS

	Non-Restrained Group		Restrained Group	
	Percent	Count	Percent	Count
DIAGNOSIS				
Conduct Disorder	56.0%	(14)	57.1%	(8)
Attention-Deficit/ Hyperactivity	36.0%	(9)	42.9%	(6)
Mood or Anxiety	44.0%	(11)	21.4%	(3)
Substance Abuse	24.0%	(6)	21.4%	(3)
Impulse Control or Bipolar	12.0%	(3)	35.7%	(5)
Adjustment or Oppositional Defiant	16.0%	(4)	21.4%	(3)
Psychotic Disorders	8.0%	(2)	21.4%	(3)
Post Traumatic Stress	8.0%	(2)	14.3%	(2)
Other Disorders	12.0%	(3)	7.1%	(1)
Total	216.0%	(54)	242.9%	(34)
Average # of Diagnoses	2.2		2.4	

TABLE 21

HISTORY OF AGGRESSION: RESTRAINT AND NON-RESTRAINT SUBJECT GROUPS

	Non-Restraint Group	Restraint Group
History of Aggression		
None	24.0%	.0%
Count	(6)	(0)
Episodes Associated With Psychiatric Illness Only	.0%	14.3%
Count	(0)	(2)
Property Damage or Minor Assault	48.0%	64.3%
Count	(12)	(9)
Threat With A Deadly Weapon or Threat of Death	16.0%	7.1%
Count	(4)	(1)
Assault With A Deadly Weapon or Dangerous or Sexual Assault	12.0%	14.3%
Count	(3)	(2)
Total	100.0%	100.0%
Count	(25)	(14)

TABLE 22

HISTORY OF IMPULSIVITY: RESTRAINT AND NON-RESTRAINT SUBJECT GROUPS

	Non-Restraint Group	Restraint Group
History Of Impulsivity		
None	32.0%	7.1%
Count	(8)	(1)
Record of Impulsive Acts	36.0%	42.9%
Count	(9)	(6)
Diagnosis of ADHD by History	32.0%	21.4%
Count	(8)	(3)
History of ADHD & an Impulse-Control Disorder	.0%	28.6%
Count	(0)	(4)
Total	100.0%	100.0%
Count	(25)	(14)

TABLE 23

HISTORY OF ABUSE: RESTRAINT AND NON-RESTRAINT SUBJECT GROUPS

	Non-Restraint Group	Restraint Group
History of Abuse		
None	76.0%	2.9%
Count	(19)	(6)
Physical Abuse/Witness to Extreme Violence/Severe Neglect	12.0%	35.7%
Count	(3)	(5)
Sexual Abuse	8.0%	.0%
Count	(2)	(0)
Both of the Above	4.0%	21.4%
Count	(1)	(3)
Total	100.0%	100.0%
Count	(25)	(14)

although the non-restraint groups came out slightly ahead. Almost 70% of the non-restraint group had no history of impulsivity or a history limited to impulsive acts. The rest of them had previous diagnoses of ADHD. Only 7% of the restraint group had no previous history of impulsivity; most of them, around 40%, had a record of impulsive acts. The other 50% of the restraint group was roughly divided between those with diagnoses of ADHD and those with ADHD and an impulse control disorder. The groups differed most significantly in their history of abuse. Approximately 76% of the non-restraint group had no history of abuse. In stark contrast, 43% of the restraint group had no reports of abuse.

CHAPTER 3

RESULTS

Minimizing Confounding Factors

The most limiting factor in this study was the very small number of subjects which made it difficult to identify real differences. Where subjects were divided into several groups, as by the IOWA, or where they were subdivided, as in the high/low analyses, sample size was substantially more of a problem than when the subjects were divided into just two groups. Dividing and subdividing the subjects also created quite lopsided groups which exacerbated the problems. Furthermore, the small sample size made it difficult to control for potential bias from the demographic factors.

As a measure of protection, manovas were run with age and heritage as the grouping variables. There were no significant differences among the age groups on the state or trait measures. In contrast, several significant ethnic differences were found. On the Constructive Thinking Inventory, African American subjects scored higher on the Naive Optimism subscale, Wilks $F(4,31)=4.84$, $p<.01$, and the univariate $F(1,34)=7.92$, $p<.01$. They also scored higher on the Control-By-Others secondary

appraisal scale, indicating a greater belief that there were others in control who could help the individual, if help was needed, Wilks $F(4,30)=2.96$, $p<.01$, and univariate $F(1,33)=8.42$, $p<.01$. Among the coping strategies, African American subjects reported using both more task-oriented coping and more emotion-oriented coping, Wilks $F(3,31)=2.89$, $p<.05$, and univariate $F(1,33)=4.29$, $p<.05$ for task and $F(1,33)=5.51$, $p<.05$ for emotion. Although differences were found, their impact was minimized by having equal ethnic representation in all of the groups. Moreover, the naive optimism difference and the control-by-others difference were not on variables that were involved in any hypotheses. Unfortunately, the coping differences were associated with hypotheses.

The IOWA Groups and the State Situations

Three different stressful situations were explored with the subjects which yielded information on primary and secondary appraisal, coping, and outcome. A binomial sign test was used to analyze the data to see if a significant number of mean differences were in the predicted direction (Murphy, DeWolfe, & Mozdzierz, 1984). The group differences did not reach significance, $z=.38$, $p=ns$ (See Table 24). Most of the mean differences on the primary appraisal measures were in the predicted direction, but those on the coping and outcome measures

TABLE 24

BINOMIAL SIGN TEST FOR THE HYPOTHESIZED RELATIONSHIPS AMONG THE APPRAISAL, COPING, AND OUTCOME VARIABLES FOR THE STATE SITUATIONS

	Means & Standard Deviations				
	IOAD	AD	NIONAD		
N=	(15)	(6)	(15)	z-value	p-value
PRIMARY APPRAISAL					
Threat	2.51*	2.43*	2.31		
	(.90)	(.85)	(.60)		
Centrality	3.41*	2.84-	3.22		
	(.78)	(.94)	(1.06)		
Stress	3.02*	2.98*	2.83		
	(.66)	(.60)	(.83)		
SECONDARY APPRAISAL					
Control-self	3.91	3.99*	3.98		
	(.70)	(.74)	(.62)		
COPING					
Task	3.00	2.78-	3.31		
	(.67)	(.68)	(.59)		
Emotion	2.91*	2.53	2.71		
	(.57)	(.66)	(.71)		
Distraction	2.81-	2.55	2.82		
	(.62)	(.51)	(.60)		
Social Diversion	3.18	2.90-	3.39		
	(.76)	(.66)	(.50)		
OUTCOME					
Turned Out	3.27-	3.29	3.19		
	(1.13)	(1.17)	(.82)		
				.38	ns

* Mean Differences are in the predicted direction.
\- Mean Differences are not in the predicted direction.

were not.

The IOWA Groups and the Trait Dimensions

The binomial sign test was used to evaluate the predicted relationships among the trait measures for the IOWA groups. Taken as a whole, the predictions reached significance, $z=1.97$, $p<.05$, (See Table 25). To further explore the data, the significant z was followed up with t-tests. As expected, the IOAD's reported being bothered by symptoms (GSI) more than the other two groups but the mean differences were not significant on the t-tests. On the Constructive Thinking Inventory, the AD's were expected to have the highest mean scores on the Global Constructive Thinking (GCT) scale and the IOAD's the lowest. The hypothesis was supported, $t(14)=2.16$, $p<05$ (See Table 26 for the significant t-tests). The IOAD's were also expected to have the poorest Emotional Coping which was supported, $t(29)=2.06$, $p<.05$. The AD's were expected to report the best Behavioral Coping and the IOAD's the worst. Mean differences were in the predicted direction but were not significant. IOAD's were hypothesized to be more Categorical in their thinking than any other group which was supported by the direction of mean differences and the significant difference between the IOAD's and the AD's, the two extreme means, $t(12)=2.54$, $p<.05$.

On the Social Problem-Solving Inventory, the IOAD's were

TABLE 25

BINOMIAL SIGN TEST FOR THE HYPOTHESIZED RELATIONSHIPS AMONG THE TRAIT CHARACTERISTICS

	Means & Standard Deviations				
	IOAD	AD	NIONAD		
N=	(15)	(6)	(15)	z-value	p-value
Brief symptom Inventory					
GSI	1.28*	.91	1.05		
	(.84)	(.76)	(.88)		
Constructive Thinking inventory					
GCT	3.16*	3.51*	3.46		
	(.44)	(.29)	(.59)		
Emotional	2.67*	2.98	3.27		
	(.78)	(.34)	(.85)		
Behavioral	3.21*	3.46*	3.43		
	(.88)	(.47)	(.69)		
Categorical	3.02*	2.30	2.83		
	(.70)	(.54)	(.55)		
Social problem-Solving inventory					
Alternative Generation	1.59*	1.72*	1.82		
	(.99)	(1.26)	(.76)		
Consequence Prediction	1.91-*	1.77-*	2.24		
	(1.03)	(1.25)	(.49)		

(Continued)

* Mean Differences are in the predicted direction.
- Mean Differences are not in the predicted direction.

TABLE 25 (Continued)

BINOMIAL SIGN TEST FOR THE HYPOTHESIZED RELATIONSHIPS AMONG THE TRAIT CHARACTERISTICS

	Means & Standard Deviations				
	IOAD	AD	NIONAD		
N=	(15)	(6)	(15)	z-value	p-value
Emotional adjective Checklist					
Negative Emotion	3.30* (.87)	2.74* (1.19)	2.46 (.79)		
Positive Emotion	3.01 (.95)	3.12⁻ (.88)	3.43 (.65)		
				1.97	<.05

* Mean Differences are in the predicted direction.
⁻ Mean Differences are not in the predicted direction.

TABLE 26

FOLLOW-UP T-TESTS FOR THE IOWA GROUPS ON THE TRAIT MEASURES

N=	IOAD Mean (16)	AD Mean (6)	NIONAD Mean (15)	t-value (df)	1-tailed p-value
Constructive Thinking Inventory					
GCT (SD)	3.16 (.44)	3.51 (.29)		2.16 (14)	<.05
GCT (SD)	3.16 (.44)		3.46 (.59)	1.60 (14)	.06
Emotional (SD)	2.67 (.78)		3.27 (.34)	2.07 (29)	<.05
Categorical (SD)	3.02 (.70)	2.30 (.54)		2.54 (12)	<.05
Categorical (SD)		2.30 (.54)	2.83 (.55)	2.02 (9)	.07
Emotion Adjective Checklist					
Negative Emotion (SD)	3.30 (.87)		2.46 (.79)	2.82 (29)	<.01

expected to generate fewer alternatives in problem situations and to have the poorest ability to predict consequences of any of the groups. The AD's were expected to be in the middle of the groups. None of the results were significant but the mean differences were in the predicted direction for alternative generation and were mixed for consequence prediction with one reversal. When asked to report on their positive and negative affect over a three month period of time, the IOAD's were expected to report more negative emotion than the AD's, and the AD's more than the NIONAD's. The means were ordered as predicted, and there was a significant difference between the IOAD's and NIONAD's, the extreme means, $t(29)=2.82$, $p<.01$. The AD's were also expected to report having more positive affect than any other group, but this was not supported.

The significant differences on variables that were not predicted will be explored for their potential benefit to future studies (See Table 27). On the SPSI-A, the IOAD's reported a significantly worse Problem Orientation, $t(29)=2.10$, $p<.05$, and, more specifically, a worse Behavioral Orientation to problems, $t(29)=2.18$, $p<.05$, than the NIONAD's. There was also a trend for them to report a poorer Emotional Orientation to problems than either the AD's, $t(12)=2.06$, $p<.06$, or the NIONAD's, $t(29)=1.88$, $p<.07$. In addition, there was a trend for the AD's to report poorer Automatic Processing than the NIONAD's, $t(9)=2.11$, $p<.07$.

TABLE 27

T-TESTS FOR NON-HYPOTHESIZED DIFFERENCES: THE IOWA GROUPS AND THE TRAIT MEASURES

N=	IOAD Mean (16)	AD Mean (6)	NIONAD Mean (15)	t-value (df)	1-tailed p-value
Social Problem-Solving Inventory					
Automatic Process (SD)		1.90 (.75)	2.64 (.69)	2.11 (9)	.07
Problem Orientation (SD)	2.06 (.70)		2.61 (.74)	2.10 (29)	<.05
Emotion (SD)	1.79 (.88)	2.52 (.68)		2.06 (12)	.06
Emotion (SD)	1.79 (.88)		2.38 (.85)	1.88 (29)	.07
Behavior (SD)	1.93 (.87)		2.67 (1.01)	2.18 (29)	<.05

Coping Decisions Under High Versus Low Appraisals

In order to test the hypotheses concerning differences in coping strategies under high versus low appraisal conditions, each group was divided into two samples at the median point for each of the appraisal variables. Every effort was made to make the two groups the same size because of the small numbers and the median did this better than the mean in most cases. Also, the mean and median were often nearly identical. Separate means were established on the coping measures for the high and low appraisal groups. The binomial sign test was used to evaluate the predicted relationships between the high and low appraisal groups for the coping outcomes. Taken as a group, the expected differences reached significance, $z=1.83$, $p<.05$ (See Table 28). With the significant z, the data was further analyzed with t-test (See Table 29).

Under the primary appraisals of higher threat, centrality, and stress, all three groups were expected to indicate increased emotion-oriented and avoidance-oriented coping. Mean differences on emotion-oriented coping were in the predicted direction for all three groups under all three appraisal conditions. Some of these differences were significant. For the NIONAD's, emotion-oriented coping was significantly greater when centrality was high, $t(13)=2.84$, $p<.01$, and when stress was high, $t(13)=4.68$, $p<.001$. For the IOAD's, emotion-oriented coping was significantly greater

TABLE 28

BINOMIAL SIGN TEST: COPING OUTCOMES UNDER HIGH VERSUS LOW APPRAISAL

	High Appraisal Mean	(SD)	Low Appraisal Mean	(SD)	z-value	p-value
NIONAD Group (N=15)						
THREAT						
Emotion	2.85*	(.78)	2.54	(.66)		
Avoidance	3.16*	(.42)	3.05	(.35)		
CENTRALITY						
Emotion	3.16*	(.63)	2.31	(.53)		
Avoidance	3.16*	(.45)	3.06	(.34)		
STRESS						
Emotion	3.29*	(.55)	2.20	(.35)		
Avoidance	3.24*	(.38)	3.00	(.37)		
CONTROL-SELF						
Task	3.54*	(.63)	3.05	(.43)		
Emotion	2.74⁻	(.78)	2.66	(.70)		
Avoidance	2.92*	(.39)	3.32	(.25)		
AD Group (N=6)						
THREAT						
Emotion	2.83*	(.75)	2.22	(.48)		
Avoidance	2.60⁻	(.47)	2.94	(.24)		
CENTRALITY						
Task	2.36	(.37)	3.20*	(.71)		
Emotion	2.65*	(.91)	2.40	(.45)		
Avoidance	2.60⁻	(.47)	2.94	(.24)		
STRESS						
Emotion	2.91*	(.72)	2.15	(.35)		
Avoidance	2.76⁻	(.59)	2.78	(.13)		
CONTROL-SELF						
Task	3.06*	(.94)	2.50	(.18)		
Emotion	2.31*	(.44)	2.74	(.86)		
Avoidance	2.74*	(.58)	2.80	(.17)		

(Continued)

TABLE 28 (Continued)
BINOMIAL SIGN TEST: COPING OUTCOMES UNDER HIGH VERSUS LOW APPRAISAL

	High Appraisal Mean	(SD)	Low Appraisal Mean	(SD)	z-value	p-value
IOAD Group (N=15)						
THREAT						
Emotion	2.908*	(.35)	2.906	(.79)		
Avoidance	2.77⁻	(.58)	3.16	(.68)		
CENTRALITY						
Emotion	3.20*	(.54)	2.58	(.43)		
Avoidance	3.07*	(.79)	2.81	(.42)		
STRESS						
Emotion	2.95*	(.67)	2.86	(.49)		
Avoidance	2.90⁻	(.76)	3.01	(.51)		
CONTROL-SELF						
Task	3.22*	(.87)	2.80	(.41)		
Emotion	3.18⁻	(.57)	2.67	(.48)		
Avoidance	3.13⁻	(.79)	2.80	(.46)		

	IOAD Mean (SD)	**AD** Mean (SD)	**NIONAD** Mean (SD)		
High Control-Self	3.22 (.87)	3.06⁻ (.94)	3.54 (.63)	1.83	<.05

* Mean Differences are in the predicted direction.
⁻ Mean Differences are not in the predicted direction.

TABLE 29

FOLLOW-UP *T*-TESTS FOR THE HIGH VERSUS LOW HYPOTHESES

	High Appraisal Mean	(*SD*)	**Low Appraisal** Mean	(*SD*)	*t*-test	1-tailed *p*-value
NIONAD Group (*N*=15)					(*df*=13)	
THREAT						
Emotion	2.85	(.78)	2.54	(.66)	.83	*ns*
Avoidance	3.16	(.42)	3.05	(.35)	.55	*ns*
CENTRALITY						
Emotion	3.16	(.63)	2.31	(.53)	2.84	<.01
Avoidance	3.16	(.45)	3.06	(.34)	.52	*ns*
STRESS						
Emotion	3.29	(.55)	2.20	(.35)	4.68	<.001
Avoidance	3.24	(.38)	3.00	(.37)	1.24	*ns*
CONTROL-SELF						
Task	3.54	(.63)	3.05	(.43)	1.72	.06
Emotion	2.74	(.78)	2.66	(.70)	.21	*ns*
Avoidance	2.92	(.39)	3.32	(.25)	2.36	<.05
AD Group (*N*=6)					*t*-test (*df*=4)	
THREAT						
Emotion	2.83	(.75)	2.22	(.48)	1.19	*ns*
Avoidance	2.60	(.47)	2.94	(.24)	1.14	*ns*
CENTRALITY						
Task	2.36	(.37)	3.20	(.71)	1.84	.07
Emotion	2.65	(.91)	2.40	(.45)	.43	*ns*
Avoidance	2.60	(.47)	2.94	(.24)	1.15	*ns*
STRESS						
Emotion	2.91	(.72)	2.15	(.35)	1.66	*ns*
Avoidance	2.76	(.59)	2.78	(.13)	.08	*ns*
CONTROL-SELF						
Task	3.06	(.94)	2.50	(.18)	1.02	*ns*
Emotion	2.31	(.44)	2.74	(.86)	.77	*ns*
Avoidance	2.74	(.58)	2.80	(.17)	.20	*ns*

(Continued)

TABLE 29 (Continued)

FOLLOW-UP T-TESTS FOR THE HIGH VERSUS LOW HYPOTHESES

	High Appraisal Mean	(SD)	**Low Appraisal** Mean	(SD)	t-test	1-tailed p-value
IOAD Group (N=15)					(df=13)	
THREAT						
Emotion	2.91	(.35)	2.91	(.79)	.01	ns
Avoidance	2.77	(.58)	3.16	(.68)	1.18	ns
CENTRALITY						
Emotion	3.20	(.54)	2.58	(.43)	2.44	<.05
Avoidance	3.07	(.79)	2.81	(.42)	.79	ns
STRESS						
Emotion	2.95	(.67)	2.86	(.49)	.29	ns
Avoidance	2.90	(.76)	3.01	(.51)	.21	ns
CONTROL-SELF						
Task	3.22	(.87)	2.80	(.41)	1.22	ns
Emotion	3.18	(.57)	2.67	(.48)	1.88	ns
Avoidance	3.13	(.79)	2.80	(.46)	1.00	ns

when centrality was high, $t(13)=2.44$, $p<.05$.

The results for avoidance coping were not strong. For the NIONAD's, avoidance coping was increased when threat, centrality, and stress were high. For the AD's, avoidance coping was decreased when the threat, centrality, and stress were high. For the IOAD's, it was a mixed bag. None of these mean differences was significant. It had been hypothesized that when appraisals of centrality were low, task coping would increase for the AD's. The mean differences on task coping were not significant, but there was a trend toward significance, $t(4)=1.84$, $p=.07$.

On the secondary appraisal measures, subjects who believed they had greater control in stressful situation were expected to report using more task coping, and less emotion and avoidance coping. Mean differences for all three IOWA groups were in the predicted direction for task coping but none of the mean differences was significant. For the NIONAD group, however, there was a trend toward significance, $t(13)=1.72$, $p=.06$. The results for emotion coping and avoidance coping were mixed. When control-by-self was high for the NIONAD's, they used less avoidance coping, as predicted, $t(13)=2.36$, $p<.05$. In contrast, for the AD's and IOAD's, none of the mean differences was significant.

Several other significant coping differences emerged which were not predicted; they will be presented for exploratory purposes in the hopes that the information might be useful in

another study (See Table 30). An examination of the secondary appraisal measures revealed several significant differences in coping and outcome for the IOWA groups which were not predicted. When appraisals of personal control were high, the NIONAD's used less distraction coping, $t(13)=2.17$, $p<.05$. When the IOAD's perceived others to be in control whom they believed they could turn to for help if needed, several forms of coping increased. They used more emotional-oriented coping, $t(13)=2.41$, $p<.05$, more avoidance coping, $t(13)=2.21$, $p<.05$, and more social diversion, $t(13)=2.49$, $p<.05$. In addition, when control-by-others was high, the IOAD's believed their stressful situations turned out better, $t(13)=3.57$, $p<.01$. On the primary appraisal measures, the NIONAD's reported using more task coping when they perceived the stressful situations as being a challenge, $t(13)=3.32$, $p<.01$.

To further explore the data on high versus low appraisal conditions, several manovas were done which treated all of the subjects as if they were one group, divided into two subgroups, high and low. Although group distinctions were lost by combining everyone, the move seemed justified because all of the hypotheses predicted the same directional outcome for the high-low differences across all the groups (See Table 3 for a summary of the hypotheses). In addition, where coping means for the smaller IOWA groups differed from the predicted direction, the differences were not significant. Finally, by making two larger groups (high

TABLE 30

FOLLOW-UP T-TESTS FOR NON-HYPOTHESIZED COPING OUTCOMES UNDER HIGH VERSUS LOW APPRAISAL CONDITIONS

	High Appraisal		Low Appraisal			1-tailed
	Mean	(SD)	Mean	(SD)	t-test	p-value
NIONAD Group (N=15)					(df=13)	
CONTROL-SELF						
Distraction	2.54	(.58)	3.14	(.47)	2.17	<.05
CHALLENGE						
Task	3.72	(.56)	2.95	(.32)	3.32	<.01
IOAD (N=15)					t-test (df=13)	
CONTROL-OTHER						
Emotion	3.23	(.57)	2.62	(.42)	2.41	<.05
Avoidance	3.29	(.68)	2.65	(.45)	2.21	<.05
Social Diversion	3.62	(.72)	2.78	(.59)	2.49	<.05
Turned Out	4.10	(.88)	2.55	(.80)	3.57	<.01

versus low), and testing differences with manovas, the results have more power. Most of the significant *t*-tests for the specific groups were also significant for the whole group when manovas were run (See Table 31 for the manova results). As predicted for the smaller Iowa groups, when subjects believed they had an important stake in a situation (centrality), they used more emotion-oriented coping, Wilks $F(3,34)=6.66$, $p<.001$, and univariate $F(1,36)=16.32$, $p<.001$. Similar results were found when appraisal of stress were high, Wilks $F(3,34)=5.82$, $p<.01$, and univariate $F(1,36)=14.28$, $p<.001$. Manova analyses did not support coping differences when threat was high versus low, nor did they support any differences in avoidance coping, regardless of which appraisal variable was used for high/low grouping. Finally, task coping did not increase when centrality was low, as had been predicted for the AD group.

Manovas were also done using high versus low conditions of the secondary appraisal variables. Task coping increased for those patients who saw themselves as having more control in the situations, Wilks $F(3,34)=2.97$, $p<.05$, and univariate $F(1,36)=6.92$, $p<.01$. The hypotheses that a strong sense of personal control would be associated with a decrease in emotion-oriented coping and avoidance coping was not supported.

Several other manovas were done on appraisal variables about which no predictions had been made. They will be presented for exploratory purposes (See Table 32). For example, subjects who

TABLE 31

THE EFFECT OF HIGH VERSUS LOW APPRAISALS ON COPING CHOICES FOR ALL SUBJECTS

Wilks Multivariate F(3, 34)=1.23, p= ns

	THREAT			
N = 38	High Appraisal Mean	Low Appraisal Mean	Univariate F-value(1,36)	p-value
Coping Inventory For Stressful Situations				
Task (SD)	2.93 (.57)	3.21 (.70)	1.77	ns
Emotion (SD)	2.87 (.58)	2.65 (.67)	1.13	ns
Avoidance (SD)	2.90 (.56)	3.02 (.48)	.52	ns

Wilks Multivariate F(3,34)=6.66, p<.001

	CENTRALITY			
N = 38	High Appraisal Mean	Low Appraisal Mean	Univariate F-value(1,36)	p-value
Coping Inventory For Stressful Situations				
Task (SD)	3.01 (.63)	3.14 (.67)	.37	ns
Emotion (SD)	3.09 (.56)	2.40 (.48)	16.32	<.001
Avoidance (SD)	2.97 (.64)	2.95 (.35)	.01	ns

(Continued)

TABLE 31 (Continued)

THE EFFECT OF HIGH VERSUS LOW APPRAISALS ON COPING CHOICES FOR ALL SUBJECTS

Wilks Multivariate $F(3, 34)=5.82$, $p<.01$

	STRESS			
N = 38	High Appraisal Mean	Low Appraisal Mean	Univariate F-value(1,36)	p-value
Coping Inventory For Stressful Situations				
Task	3.04	3.10	.08	ns
(SD)	(.57)	(.74)		
Emotion	3.08	2.41	14.28	<.001
(SD)	(.59)	(.47)		
Avoidance	2.97	2.96	.00	ns
(SD)	(.62)	(.39)		

Wilks Multivariate $F(3, 34)=2.97$, $p<.05$

	CONTROL-BY-SELF			
N = 38	High Appraisal Mean	Low Appraisal Mean	Univariate F-value(1,36)	p-value
Coping Inventory For Stressful Situations				
Task	3.32	2.81	6.92	<.01
(SD)	(.74)	(.41)		
Emotion	2.79	2.73	.07	ns
(SD)	(.71)	(.54)		
Avoidance	2.97	2.95	.02	ns
(SD)	(.57)	(.47)		

TABLE 32

THE EFFECT OF HIGH VERSUS LOW APPRAISALS ON COPING CHOICES FOR ALL SUBJECTS: NON-HYPOTHESIZED RELATIONSHIPS

Wilks Multivariate $F(3,34)=3.70$, $p<.05$

	CHALLENGE			
N = 38	High Appraisal Mean	Low Appraisal Mean	Univariate F-value(1,36)	p-value
Coping Inventory For Stressful Situations				
Task	3.39	2.78	10.33	<.01
(SD)	(.68)	(.46)		
Emotion	2.82	2.71	.24	ns
(SD)	(.73)	(.53)		
Avoidance	3.03	2.90	.56	ns
(SD)	(.54)	(.50)		

Wilks Multivariate $F(3,34)=2.86$, $p<.05$

	CONTROL-BY-OTHERS			
N = 38	High Appraisal Mean	Low Appraisal Mean	Univariate F-value(1,36)	p-value
Coping Inventory For Stressful Situations				
Task	3.28	2.74	7.50	<.01
(SD)	(.67)	(.44)		
Emotion	2.84	2.64	.88	ns
(SD)	(.66)	(.58)		
Avoidance	3.10	2.75	4.76	<.05
(SD)	(.52)	(.45)		(Continued)

TABLE 32 (Continued)

THE EFFECT OF HIGH VERSUS LOW APPRAISALS ON OUTCOME DECISIONS FOR ALL SUBJECTS: NON-HYPOTHESIZED RELATIONSHIPS

Wilks Multivariate $F(2,35)=5.02$, $p<.05$

	THREAT			
	High Appraisal	**Low Appraisal**	Univariate	
N = 38	Mean	Mean	F-value(1,36)	p-value
OUTCOME QUESTIONS				
Turned Out	2.77	3.60	7.60	<.01
(SD)	(.89)	(.97)		
Handled	3.38	3.36	.00	ns
(SD)	(.81)	(1.07)		

Wilks Multivariate $F(2,35)=4.26$, $p<.05$

	CONTROL-BY-SELF			
	High Appraisal	**Low Appraisal**	Univariate	
N = 38	Mean	Mean	F-value(1,36)	p-value
OUTCOME QUESTIONS				
Turned Out	3.62	2.75	8.61	<.01
(SD)	(.92)	(.93)		
Handled	3.60	3.14	2.29	ns
(SD)	(.83)	(1.00)		

saw the stressful situations as a challenge reported more task coping, Wilks $F(3,34)=3.70$, $p<.05$, and univariate $F(1,36)=10.33$, $p<.01$. Also, subjects who believed there were others in control who could be counted on for support (control-other) reported using more task coping, Wilks $F(3,34)=2.86$, $p<.05$, and univariate $F(1,36)=7.50$, $p<.01$, and more avoidance coping, univariate $F(1,36)=4.76$, $p<.05$. Subjects who believed they had personal control also reported that their stressful situations turned out better, Wilks $F(2,35)=4.26$, $p<.05$, and univariate $F(1,36)=8.61$, $p<.01$. Additionally, subjects who saw their situations as less threatening reported that the situations turned out better, Wilks $F(2,35)=5.02$, $p<.01$, and univariate $F(1,36)=7.60$, $p<.01$.

Early and Late Unit Appraisal: Differences in Threat and Stress

Differences in threat and stress when the early unit experience was compared with the later unit experience were evaluated using t-tests for paired samples. All groups were expected to show a decline in threat and stress by the late unit experience (See Table 33). Of the three groups, only the AD's supported expectations, and, for them, only threat, not stress, showed a significant decrease, $t(5)=2.39$, $p<.05$. The AD's were also expected to report a larger decline in threat and stress than the IOAD's. Since the IOAD's experience was an increase in threat and stress, the AD's did show a larger decline. When the mean

TABLE 33

PAIRED T-TESTS EVALUATING DIFFERENCES IN THREAT AND STRESS: EARLY VERSUS LATE UNIT EXPERIENCES FOR THE IOWA GROUPS

THREAT

	N	Early Unit Experience Mean	Late Unit Experience Mean	Difference Mean	t-value (df)	p-value
IOWA GROUPS						
IOAD	10	2.05	2.15	- .10	- .29	ns
(SD)		(.79)	(.69)	(1.08)	(9)	
AD	6	2.42	2.08	.33	2.39	<.05
(SD)		(1.07)	(1.01)	(.34)	(5)	
NIONAD	7	1.86	1.96	- .11	- .23	ns
(SD)		(.58)	(.81)	(1.21)	(6)	

STRESS

	N	Early Unit Experience Mean	Late Unit Experience Mean	Difference Mean	t-value (df)	p-value
IOWA GROUPS						
IOAD	10	2.70	2.95	- .25	- .81	ns
(SD)		(.79)	(.69)	(.98)	(9)	
AD	6	2.88	2.79	.08	.23	ns
(SD)		(.59)	(.89)	(.90)	(5)	
NIONAD	7	2.79	2.79	.00	.00	ns
(SD)		(.95)	(1.07)	(1.07)	(6)	

differences for each group were compared with one another, however, none of the differences was significant.

Relationships Between Restraint and Non-Restraint Subjects Across the State and Trait Measures

In all, there were fourteen restraint subjects and twenty-four non-restraint subjects from whom to choose matching pairs. The small numbers compelled the acceptance of slightly less than perfect pairs. Patients were matched on heritage, age, and IQ. The heritage match was exact; whereas, the age match ranged from a difference of zero to one of ten and a half months. Three pairs had IQ's at the same level, and six pairs had IQ's in adjacent levels. The whole set of predictions was explored using a binomial sign test. Ten hypotheses were made and all of the mean differences were in the predicted direction, $z=3.33$, $p<.001$ (See Table 34). The restraint subjects reported finding stressful situations more threatening, more central to well-being, and more stressful than their non-restraint pairing. Also, they used less task coping and more emotion and distraction coping. Finally, the restraint subjects were more inattentive/overactive and aggressive/defiant; they reported more severe symptoms and more negative emotion.

The group significance was followed up with paired t-tests to explore the data further (See Table 35). Two of the ten

TABLE 34

RESTRAINED VS. NON-RESTRAINED SUBJECT PAIRS: BINOMIAL SIGN TEST FOR HYPOTHESIZED RELATIONSHIPS

	Restrained Mean	**Non-Restrained** Mean	*z*-value	*p*-value
Threat	2.73*	2.18		
(*SD*)	(.57)	(.63)		
Centrality	3.54*	2.92		
(*SD*)	(.69)	(1.09)		
Stress	3.04*	2.84		
(*SD*)	(.52)	(.82)		
Task	2.47*	3.43		
(*SD*)	(.33)	(.68)		
Emotion	2.83*	2.56		
(*SD*)	(.52)	(.77)		
Distraction	2.70*	2.53		
(*SD*)	(.54)	(.55)		
Inattentive/ Overactive	4.78*	3.22		
(*SD*)	(2.99)	(2.17)		
Aggressive/ Defiant	6.89*	5.56		
(*SD*)	(1.69)	(3.54)		
Global Severity Index	1.14*	.99		
(*SD*)	(.77)	(.95)		
Negative Emotion (Trait)	2.60*	2.37		
(*SD*)	(.58)	(.54)		
(N = 9 Pairs)			3.33	<.001

* Mean differences are in the predicted directions.

TABLE 35

RESTRAINED VS. NON-RESTRAINED SUBJECT PAIRS: FOLLOW-UP *T*-TESTS FOR BINOMIALLY SIGNIFICANT RELATIONSHIPS

	Restrained Mean	**Non-Restrained** Mean	*t*(8)-value	1-tailed *p*-value
Threat	2.73	2.18	-1.95	<.05
(*SD*)	(.57)	(.63)		
Centrality	3.54	2.92	-1.68	.07
(*SD*)	(.69)	(1.09)		
Stress	3.04	2.84	-.60	*ns*
(*SD*)	(.52)	(.82)		
Task	2.47	3.43	4.42	<.001
(*SD*)	(.33)	(.68)		
Emotion	2.83	2.56	-1.24	*ns*
(*SD*)	(.52)	(.77)		
Distraction	2.70	2.53	-.61	*ns*
(*SD*)	(.54)	(.55)		
Inattentive/ Overactive	4.78	3.22	-1.47	*ns*
(*SD*)	(2.99)	(2.17)		
Aggressive/ Defiant	6.89	5.56	-1.18	*ns*
(*SD*)	(1.69)	(3.54)		
Global Severity Index	1.14	.99	-.62	*ns*
(*SD*	(.77)	(.95)		
Negative Emotion Trait	2.60	2.37	-.89	*ns*
(*SD*)	(.58)	(.54)		

(N = 9 Pairs)

predictions were significant. The restraint subjects found stressful situations more threatening, $t(8)=1.95$, $p<.05$, and they used less task-oriented coping, $t(8)=4.42$, $p<.001$. Although no hypotheses were made concerning the secondary appraisal variables, a decision was made to explore the control issue. The control-by-self scale was significant for the pairs (See Table 36). The restraint subjects reported that they felt less in control in stressful situations than the non-restraint subjects, $t(8)=1.85$, $p<.05$. Two other non-hypothesized comparisons were significant. The restraint subjects reported using less social diversion coping, $t(8)=3.98$, $p<.01$, and they reported feeling less positive affect, $t(8)=4.67$, $p<.001$.

Because of the small number of pairs, the slightly less than perfect matches, and the large number of accurate predictions of the mean directions, a decision was made to compare all of the restraint patients with all of the non-restraint patients. To evaluate the data a series of manovas was performed with the restraint and non-restraint subjects as the independent variables and the state and trait measures as the dependent variables.

The manova analyzing differences on the primary appraisal variables was significant for differences in perceptions of threat, Wilks $F(3,34)=3.00$, $p<.05$, and univariate $F(1,36)=5.95$, $p<.05$. The restraint subjects found stressful situations more threatening than the non-restraint subjects (See Table 37). Also,

TABLE 36

RESTRAINED VS. NON-RESTRAINED SUBJECT PAIRS: FOLLOW-UP T-TESTS FOR NON-HYPOTHESIZED RELATIONSHIPS

	Restrained Mean	**Non-Restrained** Mean	*t*(8)-value	2-tailed *p*-value
Control-Self	3.80	4.26	1.85	<.05
(*SD*)	(.51)	(.49)		
Control-Other	3.54	3.94	1.29	*ns*
(*SD*)	(.68)	(.89)		
Uncontrollable	1.88	1.81	-.19	*ns*
(*SD*)	(.53)	(.96)		
Social Diversion	2.73	3.56	3.98	<.01
(*SD*)	(.48)	(.44)		
Positive Emotion	2.75	3.63	4.67	<.001
(*SD*)	(.33)	(.64)		

(N = 9 Pairs)

TABLE 37

RESTRAINT VERSUS NON-RESTRAINT DIFFERENCES ON THE PRIMARY APPRAISAL MEASURES

Wilks Multivariate $F(3,34)=3.00$, $p<.05$

	Restraint Mean	**Non-Restraint** Mean	Univariate	
N=	14	24	$F(1,36)$-value	p-value
Stress Appraisal Measure				
Threat	2.82	2.23	5.95	<.05
(SD)	(.82)	(.65)		
Challenge	3.23	3.44	.77	ns
(SD)	(.81)	(.66)		
Centrality	3.59	3.06	3.27	.08
(SD)	(.74)	(.94)		

there was a trend toward significance for centrality, univariate $F(1,36)=3.27$, $p<.08$, with restraint subjects finding the stressful situations to be more important to well-being. Both of these differences were hypothesized for the pairs, with a similar outcome. There were no significant differences on the secondary appraisal variables (control), nor on stress. Differences in stress had been predicted. On the coping variables, differences had been expected for the pairs on task, emotion, and distraction coping. When the data for the whole group was analyzed, restraint subjects reported using less task coping, Wilks $F(5,32)=4.97$, $p<.01$, and univariate $F(1,36)=17.63$, $p<.001$ (See Table 38). No other differences were significant; however, there was a trend toward significance on social diversion. Restraint subjects reported using less social diversion coping, univariate $F(1,36)=3.77$, $p<.06$.

The trait variables were also examined for the whole group of restraint and non-restraint subjects (See Table 39). As expected, the restraint group was significantly more inattentive/overactive, Wilks $F(2,36)=6.23$, $p<.01$, and univariate $F(1,37)=10.59$, $p<.01$, and more aggressive-defiant, $F(1,37)=9.99$, $p<.01$. Predictions that restraint subjects would report more severe symptoms and more negative trait emotion were not significant.

Several significant differences for non-hypothesized variables were also investigated for their potential use in future

TABLE 38

RESTRAINT VERSUS NON-RESTRAINT DIFFERENCES ON THE COPING MEASURES

Wilks Multivariate $F(5,32)=4.97$, $p<.01$

	Restraint	**Non-Restraint**		
	Mean	Mean	Univariate	
N=	14	24	$F(1,36)$-value	p-value
Coping Inventory For Stressful Situations				
Task	2.59	3.35	17.63	<.001
(SD)	(.57)	(.46)		
Emotion	2.96	2.65	2.35	ns
(SD)	(.61)	(.62)		
Avoidance	2.80	3.06	2.30	ns
(SD)	(.60)	(.45)		
Distraction	2.71	2.79	.18	ns
(SD)	(.59)	(.60)		
Social Diversion	2.91	3.33	3.77	.06
(SD)	(.77)	(.57)		

TABLE 39

RESTRAINED VERSUS NON-RESTRAINED SUBJECTS: DIFFERENCES ON THE INATTENTION/OVERACTIVITY AND AGGRESSION/DEFIANT CHARACTERISTICS

Wilks Multivariate $F(2,36)=6.23$, $p<.01$

	Mean	SD	$F(1,37)$-value	p-value
INATTENTION/ OVERACTIVITY				
Restrained	6.57	(3.80)	10.59	<.01
Non-Restrained	3.48	(2.16)		
AGGRESSION/ DEFIANT				
Restrained	8.43	(3.23)	9.99	<.01
Non-Restrained	4.92	(3.38)		

Restrained: $N=14$ Non-Restrained: $N=25$

studies. Although comparisons of the trait version of negative and positive emotions did not disclose any significant differences for the restraint and non-restraint groups, the state versions were significantly different. Each time the subjects met with the researcher, they completed the Emotion Adjective Checklist describing how they felt the day of testing. Taken as a group, these measures of state emotion indicated that restraint subjects experienced more negative affect, Wilks $F(2,35)=6.75$, $p<.01$, and univariate $F(1,36)=6.63$, $p<.01$, and less positive affect, $F(1,36)=9.5$, $p<.01$, than non-restraint subjects during their stay on the unit (See Table 40). In addition, when the outcome questions were evaluated, the restraint subjects believed they handled stressful situations more poorly than non-restraint subjects, Wilks $F(2,35)=3.57$, $p<.05$, and univariate $F(1,36)=7.26$, $p<.01$ (See Table 41).

Of particular interest, the groups differed on a number of problem-solving measures (See Table 42). Significant differences were found on two of the three primary scales of the Social Problem-Solving Inventory, and there was a trend toward significance on the third. The non-restraint group reported that they had a significantly better problem orientation, Wilks $F(3,35)=3.84$, $p<.05$, and univariate $F(1,37)=5.30$, $p<.05$, better problem-solving skills, $F(1,37)=6.36$, $p<.05$, and a trend toward better automatic processing, $F(1,37)=3.14$, $p=.08$. The omnibus F

TABLE 40

RESTRAINT VERSUS NON-RESTRAINT DIFFERENCES: POSITIVE AND NEGATIVE EMOTIONS ACROSS THE STATE SITUATIONS

Wilks Multivariate $F(2,35)=6.75$, $p<.01$

	Restraint Mean	**Non-Restraint** Mean	Univariate F-value	p-value
$N=$	14	24	(1,36)	
Emotion Adjective Checklist				
Negative Emotion	2.57	2.02	6.63	<.01
(SD)	(.58)	(.66)		
Positive Emotion	2.65	3.36	9.50	<.01
(SD)	(.55)	(.75)		

TABLE 41

RESTRAINT VERSUS NON-RESTRAINT DIFFERENCES: OUTCOME QUESTIONS

Wilks Multivariate $F(2,35)=3.57$, $p<.05$

	Restraint Mean	**Non-Restraint** Mean	Univariate F-value	p-value
$N=$	14	24	(1,36)	
Outcome Questions				
Turned Out	2.89	3.35	1.88	ns
(SD)	(1.09)	(.95)		
Handled It	2.87	3.66	7.26	<.01
(SD)	(1.10)	(.70)		

TABLE 42

RESTRAINT VERSUS NON-RESTRAINT DIFFERENCES:
PRIMARY SCALES OF THE SOCIAL PROBLEM-SOLVING INVENTORY-A

Wilks Multivariate $F(3,35)=3.84$, $p<.05$

	Restraint Mean	**Non-Restraint** Mean	Univariate F-value	p-value
$N=$	14	25	(1,37)	
Social Problem-Solving Inventory-A				
Automatic Process (SD)	2.02 (.90)	2.52 (.80)	3.14	.08
Problem Orientation (SD)	1.99 (.44)	2.51 (.77)	5.30	<.05
Problem-Solving Skills (SD)	1.57 (.76)	2.20 (.74)	6.36	<.05

for the subscales of the Problem Orientation Scale did not reach significance, but the Wilks F for the subscales of the Problem-Solving Skills scale did. Among the subscales of the PSSS, non-restraint subjects reported better consequence prediction, Wilks $F(5,33)=2.80$, $p<.05$, and univariate $F(1,37)=12.43$, $p<.001$, better implementation/evaluation, univariate $F(1,37)=6.50$, $p<.05$, and better reorganization, univariate $F(1,37)=4.69$, $p<.05$ (See Table 43).

Differences in Stress: High Versus Low Constructive Thinking

Subjects who were higher in Global Constructive Thinking (GCT) were expected to experience less stress when they were evaluated for late-unit adjustment. In order to evaluate this hypothesis, the subjects were divided into two groups at the median point on the GCT scale. Twenty-seven subjects had late-unit data which included stress appraisal. An anova was conducted with stress appraisal as the dependent variable and global constructive thinking as the independent variable (See Table 44). As predicted, subjects who were higher in global constructive thinking reported significantly less stress at the late-unit session, $F(1,25)=7.04$, $p<.01$.

TABLE 43

RESTRAINT VERSUS NON-RESTRAINT DIFFERENCES ON THE SUBSCALES OF THE SOCIAL PROBLEM-SOLVING INVENTORY

Wilks Multivariate $F(6,32)=2.46$, $p<.05$

	Restraint Mean	**Non-Restraint** Mean	Univariate F-value	p-value
$N=$	14	25	(1,37)	
Problem Orientation Scale				
Cognitive	2.37	2.73	3.26	.08
(SD)	(.55)	(.62)		
Emotion	1.76	2.32	3.95	<.05
(SD)	(.78)	(.87)		
Problem-Solving Skills Scale				
Problem Identification	1.71	2.02	1.52	ns
(SD)	(.66)	(.78)		
Alternative Generation	1.39	1.93	2.93	ns
(SD)	(1.02)	(.88)		
Consequence Prediction	1.39	2.30	12.43	<.001
(SD)	(.90)	(.71)		
Implement/ Evaluate	1.63	2.35	6.50	<.05
(SD)	(.92)	(.81)		

TABLE 44

DIFFERENCES IN STRESS: LATE UNIT EVALUATION FOR SUBJECTS HIGH VERSUS LOW IN GLOBAL CONSTRUCTIVE THINKING

N=	**Constructive Thinking High Mean** (14)	**Constructive Thinking Low Mean** (13)	Univariate F-value (1,25)	p-value
Stress	2.48	3.35	7.04	<.01
(SD)	(.73)	(.96)		

TABLE 45

SUMMARY OF RESULTS

Hyp.	Independent Variables	Dependent Variables	Statistical Test	Supported
STATE			Binomial	ns
H1:	IOAD>AD>NIONAD	Threat Centrality Stress		
	AD>All Others	Control-Self		
H2:	AD>All Others	Task		
	IOAD>All Others	Emotion		
	IOAD>All Others	Distraction		
	AD>All Others	Soc. Divers.		
H3:	IOAD<All Others	Turned Out		
TRAIT			Binomial	$z<.05$
H4:	IOAD>All Others	GSI	t-test	ns
H5:	AD>NIONAD>IOAD	GCT		
	AD>IOAD	GCT	t-test	$p<.05$
	NIONAD>IOAD	GCT	t-test	$p=.06$
	IOAD<All Others	Emotional		
	IOAD<NIONAD	Emotional	t-test	$p<.05$
	AD>NIONAD>IOAD	Behavioral	t-test	ns
	IOAD>All Others	Categorical		
	IOAD>AD	Categorical	t-test	$p<.05$
	NIONAD>AD	Categorical	t-test	$p=.07$
H6:	AD<NIONAD<IOAD	Alt. Gen.	t-test	ns
	AD<NIONAD<IOAD	Conseq. Pre.	t-test	ns
H7:	IOAD>AD>NIONAD	Neg. Emotion		
	IOAD>NIONAD	Neg. Emotion	t-test	$p<.01$
	AD>All Others	Pos. Emotion	t-test	ns

(Continued)

TABLE 45 (Continued)

SUMMARY OF RESULTS

Hyp.	Independent Variables	Dependent Variables	Statistical Test	Supported
HIGH/LOW				
			Binomial	$z<.05$
H8:	**Threat**	**High**		
	IOAD	Emotion ↑	t-test	ns
	IOAD	Avoidance ↑	t-test	ns
	AD	Emotion ↑	t-test	ns
	AD	Avoidance ↑	t-test	ns
	NIONAD	Emotion ↑	t-test	ns
	NIONAD	Avoidance ↑	t-test	ns
	Centrality	**High**		
	IOAD	Emotion ↑	t-test	$p<.05$
	IOAD	Avoidance ↑	t-test	ns
	AD	Emotion ↑	t-test	ns
	AD	Avoidance ↑	t-test	ns
	NIONAD	Emotion ↑	t-test	$p<.01$
	NIONAD	Avoidance ↑	t-test	ns
	Stress	**High**		
	IOAD	Emotion ↑	t-test	ns
	IOAD	Avoidance ↑	t-test	ns
	AD	Emotion ↑	t-test	ns
	AD	Avoidance ↑	t-test	ns
	NIONAD	Emotion ↑	t-test	$p<.001$
	NIONAD	Avoidance ↑	t-test	ns
	Centrality	**Low**		
	AD	Task ↑	t-test	$p=.07$
H9:	**Control-By-Self**	**High**		
	IOAD	Task ↑	t-test	ns
	IOAD	Emotion ↓	t-test	ns
	IOAD	Avoidance ↓	t-test	ns
	AD>All Others	Task ↑	t-test	ns
	AD	Task ↑	t-test	ns
	AD	Emotion ↓	t-test	ns
	AD	Avoidance ↓	t-test	ns

(Continued)

TABLE 45 (Continued)

SUMMARY OF RESULTS

Hyp.	Independent Variables	Dependent Variables	Statistical Test	Supported
HIGH/LOW APPRAISAL				
H9:	**Control-By-Self**	**High**		
	NIONAD	Task ↑	t-test	p=.06
	NIONAD	Emotion ↓	t-test	ns
	NIONAD	Avoidance ↓	t-test	p<.05
EARLY/LATE UNIT				
H10:	Late Unit			
	IOAD	Threat ↓	t-test	ns
	IOAD	Stress ↓	t-test	ns
	AD	Threat ↓	t-test	p<.05
	AD	Stress ↓	t-test	ns
	AD>IOAD	Threat ↓	t-test	ns
	AD>IOAD	Stress ↓	t-test	ns
	NIONAD	Threat ↓	t-test	ns
	NIONAD	Stress ↓	t-test	ns
RESTRAINT/NON-RESTRAINT PAIRS			Binomial	z<.001
H11:	Rest>NonRest	Threat	t-test	p<.05
	Rest>NonRest	Centrality	t-test	p=.07
	Rest>NonRest	Stress	t-test	ns
H12:	Rest<NonRest	Task	t-test	p<.001
	Rest>NonRest	Emotion	t-test	ns
	Rest>NonRest	Distraction	t-test	ns
H13:	Rest>NonRest	IO	t-test	ns
	Rest>NonRest	AD	t-test	ns
	Rest>NonRest	GSI	t-test	ns
	Rest>NonRest	Neg. Emotion	t-test	ns
HIGH/LOW GLOBAL CONSTRUCTIVE THINKING		**Late Unit**		
H14:	High GCT<Low GCT	Stress	F-test	p<.01

CHAPTER 4

DISCUSSION

The primary purpose of this study was to evaluate the cognitive processing of subsets of inpatient adolescent males. Data on cognitive appraisal and coping was drawn from three stressful situations with which the patients were engaged during hospitalization. By taking several samples of current behavior, a realistic view of the patients skills could be attained. Measures of constructive thinking and problem-solving provided another dimension to the patients' profiles. One criterion for establishing subsets of patients was based on staff assessments of inattention/overactivity and aggression/defiance. Another was determined by whether or not a patient had been placed in restraints. Information on cognitive processing makes a valuable contribution to the understanding of adolescent inpatients, and can have an impact on treatment planning, if supported by other studies.

The results of the investigation into the IOWA group differences in appraisal, coping, and outcome across the stressful situations was disappointing. An examination of the histories, hospitalization information, and diagnostic information indicates

that definite differences existed among the groups. Yet, those differences were not captured in the evaluations of the state episodes. It was encouraging that the mean differences were in the predicted direction for the primary appraisal measures but an explanation must be sought for the lack of significance. Group distinctions were more evident on the constructive thinking and problem-solving measures but, even here, the differences were not strongly supported. The patients who were considered both inattentive/overactive and aggressive/defiant reported more limitations in thinking patterns and problem-solving than any of the other patient groups. They had the lowest scores on global constructive thinking and were the most categorical in their thinking. In addition, they had poor emotional coping skills and a poor behavioral approach to problems. Given the cognitive limitations of this group, it is especially surprising that differences in appraisal and coping did not emerge on the state situations.

The failure to find differences conflicts with predominant theoretical positions. For example, Martin and his colleagues (1994) went so far as to state that "aggressivity, inattention, hyperactivity, and impulsivity can all be conceptualized as reflecting deficits in planning, execution, and evaluation of goal directed behavior," (p.199). Numerous other authors have concurred with Martin's assessment and have reported on various

deficiencies in problem-solving found both in ADHD and aggressive youth (Halperin, et al., 1992; Hoza, et al., 1993). No doubt the theoretical position has merit; hence, flaws in this study must account for the failure.

Several possible problems may be at the root of the difficulty. First, there was a very small number of subjects in this study, and those subjects did not divide evenly among the groups, as has been noted elsewhere. Larger groups might have permitted a clearer picture to emerge. Second, the comparisons are between inpatient groups who might all have cognitive deficiencies that have different sources, but similar outcomes, thus masking real distinctions. The concept upon which the groups were established may be sound enough, but the subject population might not have been diverse enough. Too many of the subjects might have met the criterion for aggression/defiance and inattention/overactivity even though some were clearly better or worse than others. Looking at the patients' histories indicates that most of the patients qualified for at least the milder levels of IO and AD. In previous research, the focus has been primarily on outpatient populations where differences were more striking. In this study, most of the patients displayed higher levels of the problem behaviors which might have washed out differences. Future research might include a non-patient control group, or both non-patient and outpatient groups, which would allow for more distinct

contrasts. In addition, another study with more subjects might be able to determine whether failure in the present research was due primarily to lack of numbers or to the fact that the subject groupings did not take into account some key variable. Third, the stressful situations that were evaluated may have been too limited, or narrow in scope, such that subjects did not have enough opportunity to respond differently. In other words, the situations may have drawn much the same reactions from the groups; a different set of situations might have brought out more diversity. Adding one or more problem situation unique to each subject's life before hospitalization might add a whole different dimension to the study. Also, using a combination of vignettes and real situations might bring results. Finally, the search for causes of failure must be directed at the IOWA itself.

The IOWA sampled behavior on the inpatient unit and did not take into account history. Some of the subjects with the most aggressive histories were models of decorum on the unit, probably motivated by the knowledge that a report would accompany them to court. The ability to control aggressive impulses when there was a motivation to do so reveals clinically significant information, but does not alter any cognitive biases that might be associated with aggression. Consequently, adolescents with aggressive biases probably existed in all three groups, even though the patients were accurately divided according to behavior on the unit.

Behavior on the unit is an important issue, but it may not have captured the cognitive biases. On the other hand, history alone does not seem to divide the patients adequately either.

To explore the problem, the history of aggression data was recomputed to divide the patients into three groups: a) no history of aggression (6 subjects), b) minor acts of aggression (21 subjects), and c) serious acts of aggression (10 subjects). The "serious" group were all court ordered, and they represented all three IOWA groups. Four were NIONAD's, four were IOAD's, and two were AD's. Using *t*-tests to explore the state and trait data revealed some information not found for the IOWA groups; however, the number of significant differences remained very small. On the trait measures, the "serious aggressors" were more categorical in their thinking which is consistent with the literature, and less esoteric in their thinking. One of the unexpected findings was that both the minor aggression group and the serious aggression group, but especially the latter, reported believing there were others in control who could help them if they needed it. On the surface, this belief seems to run contrary to the literature which suggests that aggressive youth are more likely to assume that the intentions of others are hostile (Kendall & MacDonald (1993). A future study might fruitfully look at this belief to determine what it means for these offenders. Does it reflect a belief that consequences can be avoided if one knows the right people? Does

it reflect naive optimism? Is it a life preserver for very young and frightened adolescents? Does it reflect a remnant of basic trust that still exists for these youngsters and is stimulated by the trouble they are in?

The control-by-others difference also harkens back to the difference found on this measure by the heritage groups. The serious offender group was composed of seven African Americans and three European Americans, all but one of whom scored quite high on this measure. Although speculative, the possibility exits that this strong belief in powerful others is associated with the offending population and does not have any direct relationship to heritage or a broader cultural phenomenon. The small number of subjects may have made a fairly limited belief appear to be more broadly held than it really is.

In summary, there were problems in the study with regard to the IOWA group comparisons, particularly on the state analyses. Future studies might be designed that would tease out the various possible sources of trouble and make the comparisons more powerful. More subjects, non-inpatient comparisons, a broader range of state situations, and a more rigorous division into groups might improve the study. Also, the subject groups might be based on a combination of indices rather than only one. For example, history might be coded and then combined with staff ratings. Also, ratings might be included from parents or teachers

in the community who knew the adolescent in a different context.

Another question addressed in this study was whether differences in appraisal would be associated with differences in coping strategies. For the most part, similar results were expected for all the groups. The subjects were expected to report greater reliance on emotion and avoidance coping when a situation was viewed as more threatening, central to well-being, or stressful. Partial support for the hypotheses was found. All groups responded to higher appraisals with increased emotion-oriented coping but only the NIONAD's also increased avoidance coping. The increase in emotion-oriented coping is in line with previous research but the lack of clarity on avoidance coping is thought provoking. One possibility is that the patients did not have the freedom to increase or decrease their avoidance coping in the inpatient setting. The hospital ward is highly structured with limited opportunity for patients to choose among distractions and social diversions. Of the appraisals, subjects found centrality to be the most powerful at drawing distinctions in coping. Stress also made contributions, but, surprisingly, threat did not. In addition, the three groups did not have the same pattern of responding, nor were the significant differences evenly distributed which was puzzling.

The NIONAD's responded just as predicted, and several of the mean differences were significant. The IOAD's and AD's responded

as expected for emotion but not for avoidance, and there was only one significant difference found for either group. Once again, it would be interesting to have a group of non-patients in the mix. Although speculative, the possibility exists that differences were found for the NIONAD's because they have the capacity to respond to situations with more differentiation, and they may have a greater range of coping skills. If this observation is accurate, the NIONAD's would have greater discrimination in their appraisals and greater variation in coping. Also, a non-patient group might have still more ability to discriminate and would have yet more coping variation. In her study on appraisal and coping differences, Folkman (1986) found that all of the appraisal variables were associated with coping distinctions under high and low conditions. The non-patient population may have accounted for the plethora of results, but they may also have come about because of the large number of situations which were evaluated and the longer time span the study covered.

Some intriguing results emerged that were not predicted, and they will be discussed as potential dimensions for further research. Most important for the NIONAD group was the finding that task coping increased when the situation was thought to be challenging. Distraction coping also decreased when the NIONAD's felt personal control in the situation. Of more interest was a string of significant differences for the IOAD group. When the

IOAD's believed there was someone in control they could turn to for help if they needed it, they reported using more emotion-oriented coping, more avoidance coping, and more social distraction coping. Folkman's (1986) research suggests that these forms of coping should decrease in circumstances in which the subjects feel secure. It is difficult to be certain whether the subjects found security or comfort in knowing others were in control they could count on, but they also reported that problem situations turned out better which suggests they found circumstances reasonably positive.

If these patients did feel more comfortable and still had an increase in the less desirable forms of coping, one might speculate that the less desirable forms of coping are the best this group can do. They may need, and therefore seek, external sources of structure because they don't have well formed coping skills of their own. For example, the IOAD's might not have settled on any particular defensive orientation. Instead, they might feel unable to cope and easily overwhelmed in many situations, or their coping might be chaotic and poorly directed. In these circumstances, they might find themselves more willing to be dependent, and the structure provided by stronger "others" would be desirable. The real issue might not be control-by-others per se, but disorganization versus organization. When the IOAD's feel more secure, they might be able to launch a more cohesive

coping effort, even if it is less effective than task coping. This viewpoint is consistent with some of the literature on children with ADHD (Martin, 1994).

In order to explore the data in more depth, the IOWA groups were collapsed into one unit and then redivided into high and low subsets. Although group differences were lost, the larger groups allowed a more powerful analysis of the data. In general, the results were similar to those found for the individual groups, especially the NIONAD's. Centrality and stress continued to elicit significant differences in emotion-oriented coping, and personal control and challenge were associated with differences in task coping. Finally, control-by-others was related with both more task coping and more avoidance coping! Explanations for this finding are best left to future research.

Several important points are suggested by the high versus low appraisal analyses. First, most of the inpatients who participated in the study found the situations associated with their hospitalization to be important to their well-being. When the patients believed more was at stake or the situation was especially stressful, they responded with an increase in emotion-oriented coping. In contrast, when they felt more personal control or that others in control were there to help, they responded with more task coping and believed the problem situations turned out better. Although no firm conclusions can be

drawn until these results have been replicated and expanded in other studies, the information found in this study may serve as a reminder of the importance of fostering an environment on the hospital ward which allows patients to make the greatest therapeutic strides. This study further suggests that reducing stress, moderating the impact of problems on well-being, reframing problems as challenges, encouraging a belief in personal control, and having staff available for support are important ways to make the ward environment more therapeutic. Finally, subsets of patients may not respond in exactly the same way. In this study, the NIONAD's seemed to respond most favorably to an increased sense of personal control; whereas, the IOAD's apparently coped most effectively when they believed others in control were available to help. Future research should continue to look for the differences.

Another issue addressed in this study was whether or not there would be a decrease in appraisals of threat and stress, as predicted, when the early unit situation was compared with the latter unit circumstances. Surprisingly, only the AD group experienced a decline in these appraisals, and only the decline in threat was significant. Many factors may be contributing to on-going, or increasing, levels of stress and threat for the inpatients. Identifying those factors would be helpful since better coping seems to be associated with lowered appraisals.

One of the most intriguing comparisons addressed in this study was that of the restraint and non-restraint groups. The issue of physically restraining patients has been under-researched given its potential significance in treatment. The fundamental question being asked in this study was, 'how is the cognitive processing of patients who end up in restraints different from their fellow patients?' More specifically, restraint subjects were expected to differ on several of the appraisal, coping, and trait measures explored in the present research. In order to control for possible differences in the demographic factors, 9 of the 14 restraint subjects were paired with a non-restraint subject on heritage, age, and IQ. In all, 10 hypotheses were generated for differences across the pairs. All of the mean differences were in the predicted direction but very few reached significance.

Nonetheless, an important difference occurred on threat appraisal with restraint subjects finding stressful situations more threatening. In most of the previous analyses, threat has not proved to be a major factor in the comparisons. For example, threat did not distinguish the IOWA groups, nor was threat associated with coping variations. For the pairs, however, threat was an important point of comparison. Apparently, the restraint subjects found the inpatient situations more threatening and more important to well-being. To add to the matter, they reported having poorer coping skills, less belief in personal control in

the situations, less social diversion, and less positive emotion. Given this combination of qualities, it is not surprising that acting out was a predominant way of coping.

Before considering how the information on restraint fits into the literature, the results for the whole group of restraint patients, rather than just the pairs, will be mentioned. Although the matched pairs offered important data, a look at the whole group will offer another perspective. The relationships for threat and centrality were the same, whereas, the decreased use of social diversion was only a trend. The comparison of the larger groups revealed differences on inattention/overactivity and aggression/defiance which were predicted, but not found for the pairs. Another interesting point brought out in the group analyses was that there were no differences between groups on either positive or negative trait emotion; however, on the unit, when the state situations were evaluated, restraint subjects reported more negative emotion and less positive emotion. Restraint subjects also reported being worse in the problem-solving orientations and having worse problem-solving skills. These results are what might have been expected for the serious aggression group or the IOAD group but were found for neither. They are, however, not at all unexpected for the restraint group.

The results in this study offer some support for results found in other studies and for theoretical positions which have

been advanced. First, both similarities and differences existed when the restraint subjects in this study were compared with those in the Millstein and Cotton (1989) research. In the latter study, preadolescent restraint subjects were more likely to have a history of aggressive behavior, to have attempted suicide, to have trouble controlling impulses, and to have a history of physical or sexual abuse. In the current study, restraint subjects were more likely to have a history of minor aggression, but not major, they were less likely to have attempted suicide, more likely to have an abusive history, and more likely to have an ADHD or impulse control disorder diagnosis. The results of this study also offer support for Cotton's theoretical position that many hospitalized adolescents have poor impulse control and few coping resources, particularly those that are restrained (Cotton, 1989). Similarly, the results are consistent with Kalogjera and his associates who have suggested that disruptive adolescents are unable to use cognitions to handle aggression and deal with problems, and have limited coping skills (Kalogjera, et al., 1989). Although this study supports predominant theory in the area of restraint, the question of whether or not restraint is beneficial as part of treatment remains unanswered.

The last question addressed in this study sought to identify whether subjects with better global constructive thinking would find living on the unit less stressful at the late-unit

evaluation. As expected, better global constructive thinking was associated with less stress at time 2. If this information is supported in a larger study, an effort might be made to evaluate the habitual thinking patterns of inpatients in order to identify those who are more vulnerable. In addition, helping patients develop more constructive thinking might become part of treatment plans.

In sum, this study was designed to examine the cognitive appraisals, coping, and outcome perceptions of 39 male adolescent inpatients in three specific situations related to hospitalization. In addition, dispositional measures of constructive thinking, problem-solving, symptom severity, and emotional outlook were explored. Comparisons on the variables of interest were made for subsets of patients: first, the IOWA groups, patients high versus low on inattention/overactivity (IO) and/or aggression-defiance (AD), and second, patients who experienced, or had not experienced, a restraint episode during hospitalization. The IOWA divided patients into three groups, the IOAD's who were high in both inattention/overactivity and aggression/defiance, the AD's who were high in aggression/defiance only, and the NIONAD's who were low in both characteristics. The IO group, who were high in inattention/overactivity only, were dropped from the study because only two subjects were in the group. Coping differences under high versus low appraisal

conditions were also examined for the IOWA groups; e.g., when stress was higher, NIONAD's used more emotion-oriented coping.

Patients were individually tested. The three state situations were early unit experience, late unit experience, and a problem that occurred during hospitalization. If a restraint episode occurred for a patient then that situation was treated as their problem. Toward the end of testing, unit staff were asked to complete the IOWA questionnaire for the patient.

The results found in the study were weak, but encouraging with regard to future research. No distinctions were identified on appraisal or coping for the IOWA groups. Support for variation on the trait measures was weak but several differences emerged; e.g., as expected, the IOAD's had the poorest constructive thinking. Among the appraisal measures, high centrality and high stress were associated with the most emotion-oriented coping. Few differences were noted for the restraint/non-restraint pairs, but restraint subjects did find the situations more threatening, and they used less task-oriented coping. The small number of subjects might have been a primary factor in the weak results. The results suggest promising research options for the future.

APPENDIX A

REQUEST FOR VOLUNTEER CONSENT FOR A RESEARCH STUDY

ADOLESCENT YOUNG MEN ONLY: AGES 12-17

*MILWAUKEE COUNTY MENTAL HEALTH COMPLEX

REQUEST FOR VOLUNTEER CONSENT FOR A RESEARCH STUDY

TITLE OF PROJECT: "The Cognitive Appraisals and Coping Strategies of Male Adolescent Inpatients"

PURPOSE: The purpose of the research study is to explore what adolescent inpatient young men find important about stressful situations and how they try to deal with them. The study will look at situations that are related to being an inpatient. The study will also look at characteristics of the adolescents.

PROCEDURES: Each adolescent will meet with the researcher two-three times. At each meeting the young man will be asked to answer several sets of questions. The total time will be approximately two and a half hours.

REWARD FOR PARTICIPATING: Each time the young man meets with the researcher and completes the questions, he may choose some snacks to eat. If he completes the study, he will be given five dollars which he can keep at the nurses station until he is able to spend it.

RISKS: There are no risks expected for the young man. Before he can participate in the study, a member of his treatment team must agree to allow him to take part. Also, the young man may withdraw from the study at any time, and a member of his treatment team can request that he be withdrawn.

BENEFITS: The information which is obtained from this study may be used scientifically and may help other inpatients.

CONFIDENTIALITY: The information given by the young man will be used for research purposes and will be considered confidential. His answers will not be told to anyone at the hospital, although the information gained from all the participants as a group may be shared. The young man's name will not be associated with any articles, papers, or presentations that result from the research.

NO PREJUDICE: Whether or not you choose to let this young man participate, the care he receives at the Child and Adolescent Treatment Center will be the same.

FURTHER INFORMATION: If you have any questions about this project at any time, you may ask them of Mrs. Kathleen Burroughs or Dr. Joseph Layde, chairman of the HRRC.

***In Conjunction with Loyola University of Chicago**

APPENDIX B

THE EMOTION ADJECTIVE CHECKLIST (State Version)

THE EMOTION ADJECTIVE CHECKLIST (State Version)

NAME: _____ DATE: _____

For each of the emotions listed below, please circle the number that best tells how much you are feeling that particular emotion today.

1) Worried (How worried are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

2) Scared (How scared are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

3) Hopeful (How hopeful are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

4) Pleased (How pleased are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

5) Anxious (How anxious are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

6) Happy (How happy are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

7) Eager (How eager are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

8) Angry (How angry are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

9) Disappointed (How disappointed are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

10) Confident (How confident are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

11) Relieved (How relieved are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

12) Guilty (How guilty are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

13) Cheerful (How cheerful are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

14) Sad (How sad are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

APPENDIX C

THE STRESS APPRAISAL MEASURE (SAM)

The Stress Appraisal Measure (SAM)

Edward J. Peacock & Paul T.P. Wong

This questionnaire is concerned with your thoughts about various aspects of the situation identified previously. There are no right or wrong answers. Please respond according to how you view this situation right **NOW**. Please answer **ALL** questions. Answer each question by **CIRCLING** the appropriate number corresponding to the following scale.

1	2	3	4	5
Not At All	Slightly	Moderately	Considerably	Extremely

1.	Is this a totally hopeless situation?	1	2	3	4	5
2.	Does this situation create tension in me?.....	1	2	3	4	5
3.	Is the outcome of this situation uncontrollable by anyone?	1	2	3	4	5
4.	Is there someone or some agency I can turn to for help if I need it?	1	2	3	4	5
5.	Does this situation make me feel anxious?	1	2	3	4	5
6.	Does this situation have important consequences for me?	1	2	3	4	5
7.	Is this going to have a positive impact on me?	1	2	3	4	5
8.	How eager am I to tackle this problem?	1	2	3	4	5
9.	How much will I be affected by the outcome of this situation?	1	2	3	4	5
10.	To what extent can I become a stronger person because of this problem?	1	2	3	4	5
11.	Will the outcome of this situation be negative?	1	2	3	4	5
12.	Do I have the ability to do well in this situation?	1	2	3	4	5
13.	Does this situation have serious implications for me?.....	1	2	3	4	5
14.	Do I have what it takes to do well in this situation?	1	2	3	4	5

15.	Is there help available to me for dealing with this problem?	1	2	3	4	5
16.	Does this situation tax or exceed my coping resources?	1	2	3	4	5
17.	Are there sufficient resources available to help me in dealing with this situation?	1	2	3	4	5
18.	Is it beyond anyone's power to do anything about this situation?	1	2	3	4	5
19.	To what extent am I excited thinking about the outcome of this situation?	1	2	3	4	5
20.	How threatening is this situation?.....	1	2	3	4	5
21.	Is the problem unresolvable by anyone?	1	2	3	4	5
22.	Will I be able to overcome the problem?	1	2	3	4	5
23.	Is there anyone who can help me to manage this problem?	1	2	3	4	5
24.	To what extent do I perceive this situation as stressful?	1	2	3	4	5
25.	Do I have the skills necessary to achieve a successful outcome to this situation?	1	2	3	4	5
26.	To what extent does this event require coping efforts on my part?	1	2	3	4	5
27.	Does this situation have long-term consequences for me?	1	2	3	4	5
28.	Is this going to have a negative impact on me?	1	2	3	4	5

Mrs. Kathleen Burroughs, M.S.
10937 N. Hedgewood Lane
Mequon, Wisconsin 53092
(414) 242-1385

Dr. Paul T.P. Wong
Trinity Western University
Counselling Psychology
7600 Glover Road
Langley, British Columbia
Canada V3A 6H4

February 9, 1996

Dear Dr. Wong:

I am completing a doctoral dissertation at Loyola University of Chicago entitled "The Cognitive Appraisals and Coping strategies of Male Adolescent Inpatients." I would like your permission to reprint in my dissertation a copy of the Stress Appraisal Measure (SAM). The requested permission extends to any future revisions and editions of my dissertation, including non-exclusive world rights in all languages, and to the prospective publication of my dissertation by University Microfilms, Inc. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you. Your signing of this letter will also confirm that you own or have a license for the copyright to the above-described material.

If these arrangements meet with your approval, please sign this letter where indicated below, and return it to me in the enclosed envelope. If I can answer any further questions, please call me at the number given above. Thank you very much.

Sincerely,

Kathleen Burroughs

Kathleen Burroughs, M.S.

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE:

NAME: _____ DATE: Feb 21/96

APPENDIX D

COPING INVENTORY FOR STRESSFUL SITUATIONS-ADOLESCENT

CISS-Adolescent
by Norman S. Endler, Ph.D., F.R.S.C. and James D.A. Parker,

Sample items from the **Coping Inventory for Stressful Situations-Adolescent** form. Items are scored on a Likert scale from **1 (Not at All)** to **5 (Very Much)**.

TASK SCALE:

2. Focus on the problem and see how I can solve it.
15. Think about how I solved similar problems.

EMOTION SCALE:

25. "Freeze and not know what to do.
38. Get angry.

AVOIDANCE SCALE:

9. Window Shop. (Changed to, "Play games by myself.")
23. Go to a party. (Changed to, "Have fun with the kids in the main living area.")

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Kathleen Burroughs, M.S.
10937 North Hedgewood Lane
Mequon, WI 53092

March 4, 1996

Dear Mrs. Burroughs,

This letter is to confirm that you have been granted permission to include a maximum of six items from the Adolescent version of the Coping Inventory for Stressful Situations (CISS) in the appendix of your doctoral dissertation, The Cognitive Appraisals and Coping Strategies of Male Adolescent Inpatients. You must include the appropriate copyright notice directly below the list of items. "© 1990, Multi-Health Systems Inc., 908 Niagara Falls Blvd., N. Tonawanda, NY, 14120-2060, (416) 424-1700. Reproduced by permission". Permission is extended to University Microfilms, Inc. for the purposes of distributing final copies of your dissertation. You have also been granted permission to alter the wording of the CISS items as required for the purposes of the aforementioned study only. However, doing so will jeopardize the reliability and validity of the data. These grants of permission are nonexclusive and are not to be construed as granting any rights other than that described.

I trust that this is satisfactory and wish you much success with your dissertation.

Sincerely,

Elisa Gerlock
Permissions Officer

In Canada
65 Overlea Blvd., Suite 210
Toronto, Ontario M4H 1P1
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North Tonawanda, NY 14120-2060
Fax: (416) 424-1736

APPENDIX E

OUTCOME QUESTIONNAIRE

OUTCOME QUESTIONNAIRE

PRINT NAME: _____ DATE: _____

Situation: 1 2 3 R

1) How do you think the situation turned out for you?

1	2	3	4	5
Very Bad	Slightly Bad	Neither Bad Nor Good	Fairly Well	Very Well

---

2) How do you think you handled the situation?

1	2	3	4	5
Very Bad	Slightly Bad	Neither Bad Nor Good	Fairly Well	Very Well

---

APPENDIX F

THE EMOTION ADJECTIVE CHECKLIST (Trait Form)

THE EMOTION ADJECTIVE CHECKLIST (Trait Form)

NAME: _____ DATE: _____

For each of the emotions listed below, please circle the number that best tells how much you are feeling that particular emotion during the last three months.

---

1) Worried (How worried are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

2) Scared (How scared are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

3) Hopeful (How hopeful are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

4) Pleased (How pleased are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

5) Anxious (How anxious are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

6) Happy (How happy are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

7) Eager (How eager are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

8) Angry (How angry are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

9) Disappointed (How disappointed are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

10) Confident (How confident are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

11) Relieved (How relieved are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

12) Guilty (How guilty are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

13) Cheerful (How cheerful are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

---

14) Sad (How sad are you feeling today?)

1	2	3	4	5
Very Slightly Or Not At All	A Little	A Moderate Amount (A Middle Amount)	Quite a Bit	Very Much

APPENDIX G

BRIEF SYMPTOM INVENTORY

BRIEF SYMPTOM INVENTORY
by Leonard R. Derogatis, Ph.D.

Sample items from the **Brief Symptom Inventory**. Items are scored on a Likert scale from **0 (Not at all)** to **4 (Extremely)**.

HOW MUCH WERE YOU DISTRESSED BY:

1. Nervousness or shakiness inside.
13. Temper outbursts that you could not control.
51. Feeling that people will take advantage of you if you let them.

February 14, 1996

Mrs. Kathleen Burroughs, M.S.
10937 N. Hedgewood Lane
Mequon, WI 53092

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Virginia Smith
Product Manager

cc: Carol Watson
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APPENDIX H

THE CONSTRUCTIVE THINKING INVENTORY

CTI-S-1/False-5/True-3/95

C T I - S

INSTRUCTIONS: Please do not write on this form. Write all responses on the answer sheet.

1. Do not fill in your name.

2. In center column, fill in your sex and your grade.

3. In lower left box, fill in: your Birth Date and
   your Student identification number.
   (If you are not sure of your student identification number, write your name on the top of the sheet).

4. In the very last "Special Codes" column (column P)
   fill in the 0 if you are an only child
   1 if you are the oldest child in your family
   2 if you are a middle child in your family
   3 if you are the youngest child in your family

****

First of all, this is not a test but a questionnaire. A typical question is, "When bad things happen to me, I worry about them for a long time." If you are a real worrier, fill in 5, the "all true" answer. If you almost never worry, and when you do it doesn't last very long, fill in 2, "pretty much false." Use 3, the "not sure" answer, only if you can't decide on the other choices.

There is no right or wrong answer to any of the questions (except for a few silly questions such as "Most birds can run faster than they can fly)." If any question confuses you, just answer it as well as you can. (The silly questions are to check that you are paying attention. Please answer them correctly.)

Read each statement carefully. On the answer sheet, fill in a number from 1 to 5 that is the most accurate response for each item. Please respond to every statement. Do not skip any. Fill in only one response for each statement.

1	2	3	4	5
All False	Pretty Much False	Not Sure	Pretty Much True	All True

(TURN TO #1 ON THE OTHER SIDE)

1	2	3	4	5
All False	Pretty Much False	Not Sure	Pretty Much True	All True

1. When I have a difficult task to do, I try to think about things that will help me do my best.
2. I feel that people are either my friends or my enemies.
3. I don't get upset about little things.
4. I believe there are people who can project their thoughts into other people's minds.
5. If I do well on an important test, I feel like a total success and that I'll go far in life.
6. When I'm not sure how things will turn out, I usually expect the worst.
7. If people treat you badly, you should treat them the same way.
8. If I don't do well, I take it very hard.
9. Most birds can run faster than they can fly.
10. Some people can read other people's thoughts.

---

11. I think everyone should love their parents.
12. When I have a lot of work to do, I feel like giving up.
13. There are only two answers to any question, a right one and a wrong one.
14. When anyone disapproves of me, I get very upset.
15. If I wish hard enough for something, my wish will come true.
16. If I do something good, then good things will happen to me.
17. I get so upset if I try hard and don't do well that I usually don't try to do my best.
18. Two plus two equals four.
19. I worry a lot about what other people think of me.
20. I believe the moon or the stars can affect people's thinking.

(GO ON TO #21 ON THE NEXT PAGE.

1	2	3	4	5
All False	Pretty Much False	Not Sure	Pretty Much True	All True

21. When something good happens to me, I feel that more good things are likely to follow.

22. There are basically two kinds of people in this world, good and bad.

23. I don't worry about things I can't do anything about.

24. I have washed my hands at least one time this year.

25. I don't believe in ghosts.

26. I usually look at the good side of things.

27. I've learned not to hope too hard, because what I hope for usually doesn't happen.

28. I trust most people.

29. I like to succeed, but I don't get too upset if I fail.

30. I believe in flying saucers.

---

31. When I discover that someone I like a lot likes me, it makes me feel like a wonderful person and that I can accomplish whatever I want to.

32. When bad things happen to me, I don't worry about them for very long.

33. I believe there are people who can see into the future.

34. I think anyone who really wants a good job can find one.

35. I have never seen anyone with blue eyes.

36. I think there are many wrong ways but only one right way to do almost anything.

37. I try to do my best in almost everything I do.

38. I believe most people are only interested in themselves.

39. I don't have any good-luck charms.

40. When I have a lot of work to do by a deadline, I waste a lot of time worrying about it.

(TURN TO SEE ON THE OTHER SIDE.

1	2	3	4	5
All False	Pretty Much False	Not Sure	Pretty Much True	All True

41. I think more about happy things from my past than about unhappy things.

42. I believe in good and bad magic.

43. The only person I completely trust is myself.

44. If I did not make a team, I would feel terrible and think that I would never be on any team.

45. I try to accept people as they are.

46. Water is usually wet.

47. It is foolish to trust anyone completely because if you do you will get hurt.

48. I do not believe in any superstitions.

49. People should try to look happy, no matter how they feel.

50. I spend a lot of time thinking about my mistakes even if there's nothing I can do about them.

---

51. Almost all people are good at heart.

52. If I have something unpleasant to do, I try to think about it in a way that makes me feel better.

PLEASE CHECK THAT YOU HAVE ANSWERED EVERY QUESTION
& THAT EVERY QUESTION HAS ONLY ONE ANSWER.

Mrs. Kathleen Burroughs, M.S.
10937 N. Hedgewood Lane
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(414) 242-1385

Seymour Epstein, Ph.D.
Department of Psychology
University of Massachusetts
Amherst, Massachusetts 01003

February 9, 1996

Dear Dr. Epstein:

I am completing a doctoral dissertation at Loyola University of Chicago entitled "The Cognitive Appraisals and Coping strategies of Male Adolescent Inpatients." I would like your permission to reprint in my dissertation a copy of the Constructive Thinking Inventory-Short Form (CTI-S). The requested permission extends to any future revisions and editions of my dissertation, including non-exclusive world rights in all languages, and to the prospective publication of my dissertation by University Microfilms, Inc. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you. Your signing of this letter will also confirm that you own or have a license for the copyright to the above-described material.

If these arrangements meet with your approval, please sign this letter where indicated below, and return it to me in the enclosed envelope. If I can answer any further questions, please call me at the number given above. Thank you very much.

Sincerely,

Kathleen Burroughs

Kathleen Burroughs, M.S.

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE:

NAME: Seymour Epstein DATE: Feb 14, 1996

APPENDIX I

THE SOCIAL PROBLEM-SOLVING INVENTORY-ADOLESCENT

Social Problem-Solving Inventory for Adolescents (SPSI-A): Long Version

Directions:

Below are statements that reflect how you respond to problems and how you think and feel about yourself afterward. The problems that you should think about are serious. These problems are related to family, friends, school, and health.

Please read each statement carefully. Select the number which best describes how true the statement is of you. Think about how you usually think, feel, and behave when you face these types of problems.

Circle the number that best describes you:

Answers:

0 = Not at all true of me
1 = Slightly true of me
2 = Moderately true of me
3 = Very true of me
4 = Extremely true of me

1.	When I'm faced with a problem, I think about how it will affect my well-being.	0 - 1 - 2 - 3 - 4
2.	When I have a problem, I decide if I am able to solve it.	0 - 1 - 2 - 3 - 4
3.	When I have a problem, I decide if I have the resources and support to solve it.	0 - 1 - 2 - 3 - 4
4.	When I have a problem, I think of the ways that I have handled the same kind of problem before.	0 - 1 - 2 - 3 - 4
5.	To solve a problem, I do what has worked for me in the past.	0 - 1 - 2 - 3 - 4
6.	I try to use facts that I know to solve a problem.	0 - 1 - 2 - 3 - 4
7.	When I solve a problem, I use the skills I have developed that have worked for me in the past.	0 - 1 - 2 - 3 - 4
8.	When I can't solve a problem by using methods that have worked in the past, I try to find other ways to deal with the problem.	0 - 1 - 2 - 3 - 4
9.*	When I can't solve a problem quickly and easily, I think that I am stupid.	0 - 1 - 2 - 3 - 4
10.*	I often doubt that there is a good way to solve problems that I have.	0 - 1 - 2 - 3 - 4

Answers:
0 = Not at all true of me
1 = Slightly true of me
2 = Moderately true of me
3 = Very true of me
4 = Extremely true of me

11.	When I fail to solve a problem at first, I don't give up. Instead, I believe I will eventually find a good answer.	0 - 1 - 2 - 3 - 4
12.	I usually believe that there is a good solution to my problem.	0 - 1 - 2 - 3 - 4
13.*	I often doubt that I can solve a complex problem on my own no matter how hard I try.	0 - 1 - 2 - 3 - 4
14.	When faced with a hard problem, I believe that, if I try, I will be able to solve it on my own.	0 - 1 - 2 - 3 - 4
15.	I try to see a problem as a challenge rather than a threat.	0 - 1 - 2 - 3 - 4
16.*	When I can't solve a problem, I often think that I should give up and ask someone for help.	0 - 1 - 2 - 3 - 4
17.*	I feel afraid when I have an important problem to solve.	0 - 1 - 2 - 3 - 4
18.*	I often doubt myself when I have an important decision to make.	0 - 1 - 2 - 3 - 4
19.*	I get angry when I can't solve a problem quickly.	0 - 1 - 2 - 3 - 4
20.*	Complex problems make me very upset.	0 - 1 - 2 - 3 - 4
21.*	When I am trying to solve a problem, I often get so upset that I cannot think clearly.	0 - 1 - 2 - 3 - 4
22.*	When I am working on a hard problem, I get so upset that I often feel confused.	0 - 1 - 2 - 3 - 4
23.*	I hate solving problems that occur in my life.	0 - 1 - 2 - 3 - 4
24.*	I often become depressed and do not feel like doing anything when I have a problem to solve.	0 - 1 - 2 - 3 - 4
25.*	I get discouraged when my first efforts to solve a problem fail.	0 - 1 - 2 - 3 - 4
26.*	I spend too much time worrying about my problems instead of solving them.	0 - 1 - 2 - 3 - 4

Answers:

0 = Not at all true of me
1 = Slightly true of me
2 = Moderately true of me
3 = Very true of me
4 = Extremely true of me

27.*	I often wait to see if a problem will solve itself before I try to solve it.	0 - 1 - 2 - 3 - 4
28.*	I put off solving a problem for as long as I can.	0 - 1 - 2 - 3 - 4
29.*	I avoid dealing with problems in my life.	0 - 1 - 2 - 3 - 4
30.*	I put off solving problems until it is too late to do anything about them.	0 - 1 - 2 - 3 - 4
31.*	I spend more time avoiding my problems than solving them.	0 - 1 - 2 - 3 - 4
32.*	When faced with a hard problem, I avoid the problem or go to someone else for help.	0 - 1 - 2 - 3 - 4
33.	I decide if a problem is part of a larger, more complex problem that should be solved first.	0 - 1 - 2 - 3 - 4
34.	When I have a problem, I find out if it is part of a bigger problem that I should deal with.	0 - 1 - 2 - 3 - 4
35.	When I have a problem, I examine the things that surround me which may cause the problem.	0 - 1 - 2 - 3 - 4
36.	I try to solve a complex problem by breaking it into smaller pieces that I can solve one at a time.	0 - 1 - 2 - 3 - 4
37.	Before I solve a problem, I gather as many facts about the problem as I can.	0 - 1 - 2 - 3 - 4
38.	When I solve a problem, I look at the facts and decide which are the most important.	0 - 1 - 2 - 3 - 4
39.	I try to identify things that might keep me from solving a problem.	0 - 1 - 2 - 3 - 4
40.	Before I pick a solution to a problem, I use a system to help me decide which option is best.	0 - 1 - 2 - 3 - 4
41.	When I solve a problem, I think of a number of options and combine them to make a better solution.	0 - 1 - 2 - 3 - 4
42.	When I try to solve a problem, I can think of a number of options.	0 - 1 - 2 - 3 - 4

Answers:

0 = Not at all true of me
1 = Slightly true of me
2 = Moderately true of me
3 = Very true of me
4 = Extremely true of me

43.	I try to think of as many ways to approach a problem as I can.	0 - 1 - 2 - 3 - 4
44.	When I solve a problem, I think of as many options as I can until I can't think of any more.	0 - 1 - 2 - 3 - 4
45.	I approach problems from as many angles as I can.	0 - 1 - 2 - 3 - 4
46.	Before I solve a problem, I determine the effect the solution will have on my well-being or the well-being of others.	0 - 1 - 2 - 3 - 4
47.	When I decide which option is best, I predict what the outcome will be.	0 - 1 - 2 - 3 - 4
48.	When I decide what to do, I think of the short- and long-term outcomes of each option.	0 - 1 - 2 - 3 - 4
49.	When I decide which options are best, I weigh the outcomes for each of them.	0 - 1 - 2 - 3 - 4
50.	When I select the best solution to a problem, I think of the effect it will have on my feelings.	0 - 1 - 2 - 3 - 4
51.	Before I try to solve a problem, I set a goal so I know what I want to achieve.	0 - 1 - 2 - 3 - 4
52.	I keep the goal that I set in mind at all times when I solve a problem.	0 - 1 - 2 - 3 - 4
53.	Before solving a problem, I practice my solution to increase my chances of success.	0 - 1 - 2 - 3 - 4
54.	I often feel good about the outcome to my problems after I carry out the option I selected.	0 - 1 - 2 - 3 - 4
55.	After I solve a problem, I decide if I feel better about the situation.	0 - 1 - 2 - 3 - 4
56.	After solving a problem, I assess if the situation is better.	0 - 1 - 2 - 3 - 4
57.	I often solve my problems and achieve my goals.	0 - 1 - 2 - 3 - 4
58.	After carrying out a solution to the problem, I decide what went right and what went wrong.	0 - 1 - 2 - 3 - 4

Answers:

0 = Not at all true of me
1 = Slightly true of me
2 = Moderately true of me
3 = Very true of me
4 = Extremely true of me

59. When the outcome to a problem is not satisfactory, I find out what went wrong before trying again. 0 - 1 - 2 - 3 - 4

60. If the solution to a problem fails, I go back to the beginning and try again. 0 - 1 - 2 - 3 - 4

61. When a solution does not work, I try to determine what went wrong. 0 - 1 - 2 - 3 - 4

62. I go through the problem-solving process again when my first option fails. 0 - 1 - 2 - 3 - 4

63. When a solution fails to solve a problem, I go back to a number of different steps to start again. 0 - 1 - 2 - 3 - 4

64. When I successfully solve a problem, I decide what I did right. 0 - 1 - 2 - 3 - 4

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Marianne Frauenknecht, Ph.D.
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4024-6 Student Recreation Center
Kalamazoo, Michigan 49008-3871

February 9, 1996

Dear Dr. Frauenknecht:

I am completing a doctoral dissertation at Loyola University of Chicago entitled "The Cognitive Appraisals and Coping strategies of Male Adolescent Inpatients." I would like your permission to reprint in my dissertation a copy of the Social Problem-Solving Inventory for Adolescents (SPSI-A). The requested permission extends to any future revisions and editions of my dissertation, including non-exclusive world rights in all languages, and to the prospective publication of my dissertation by University Microfilms, Inc. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you. Your signing of this letter will also confirm that you own or have a license for the copyright to the above-described material.

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Sincerely,

Kathleen Burroughs

Kathleen Burroughs, M.S.

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NAME Marianne Frauenknecht DATE: 2/16/96

* would need a final copy of dissertation.

APPENDIX J

IOWA CONNERS

IOWA CONNERS

PRINT CHILD'S NAME: _____ DATE: _____

PRINT NAME OF RATER: _____

Please Check The Column Which Best Describes This Child For Each Characteristic.

	NOT AT ALL	JUST A LITTLE	PRETTY MUCH	VERY MUCH
1. Fidgeting				
2. Hums and Makes Other Odd Noises				
3. Excitable, Impulsive				
4. Quarrelsome				
5. Defiant				
6. Inattentive, Easily Distracted				
7. Uncooperative				
8. Acts "Smart"				
9. Fails to Finish Things He Starts (Short Attention Span)				
10. Temper Outbursts (Explosive & Unpredictable Behavior)				

Mrs. Kathleen Burroughs, M.S.
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Shirley Smith
JAI Press Inc.
Greenwich, Connecticut
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March 12, 1996

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Sincerely,

Kathleen Burroughs

Kathleen Burroughs, M.S.

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Good luck on your dissertation.

NAME: Shirley A. Smith DATE: 3/13/96

Shirley S. Smith
Director, Copyrights & Permissions

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VITA

Kathleen Burroughs is the daughter of Gertrude Steele Walton and James Walton, and the wife of Charles Burroughs. She was born on January 19, 1943 in Tulsa, Oklahoma.

In 1974, Kathleen received a Bachelor of Science degree from the University of Wisconsin-Milwaukee with a major in English. In 1986, she earned a Master of Science degree in clinical psychology from Marquette University in Milwaukee, Wisconsin. Currently, she is a doctoral student in clinical psychology at Loyola University of Chicago.

Kathleen began her clinical experience as a clinical psychology trainee at the Marquette Center for Psychological Services. Subsequently, she was a psychology clerk at Sacred Heart Rehabilitation Hospital and then at Zablocki Veterans Administration Medical Center, both in Milwaukee. Also, she worked as a clinical psychology trainee at the Loyola University Counseling Center. Finally, Kathleen did her clinical internship at the Milwaukee County Mental Health Complex. She spent eight months training at the Child and Adolescent Treatment Center and four months at the adult facility.

Kathleen was a graduate teaching assistant both at Marquette University and at Loyola University. At Marquette, she co-taught Life Span Developmental Psychology to undergraduates. Also, she has been a guest instructor several times for the counselor training program at the Kettle Moraine Hospital Institute of Training and Education.

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DISSERTATION APPROVAL SHEET

The dissertation, The Cognitive Appraisals and Coping Strategies of Male Adolescent Inpatients, submitted by Kathleen Burroughs has been read and approved by the following committee:

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The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the committee with reference to content and form.

The dissertation is, therefore, accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

3/19/96
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